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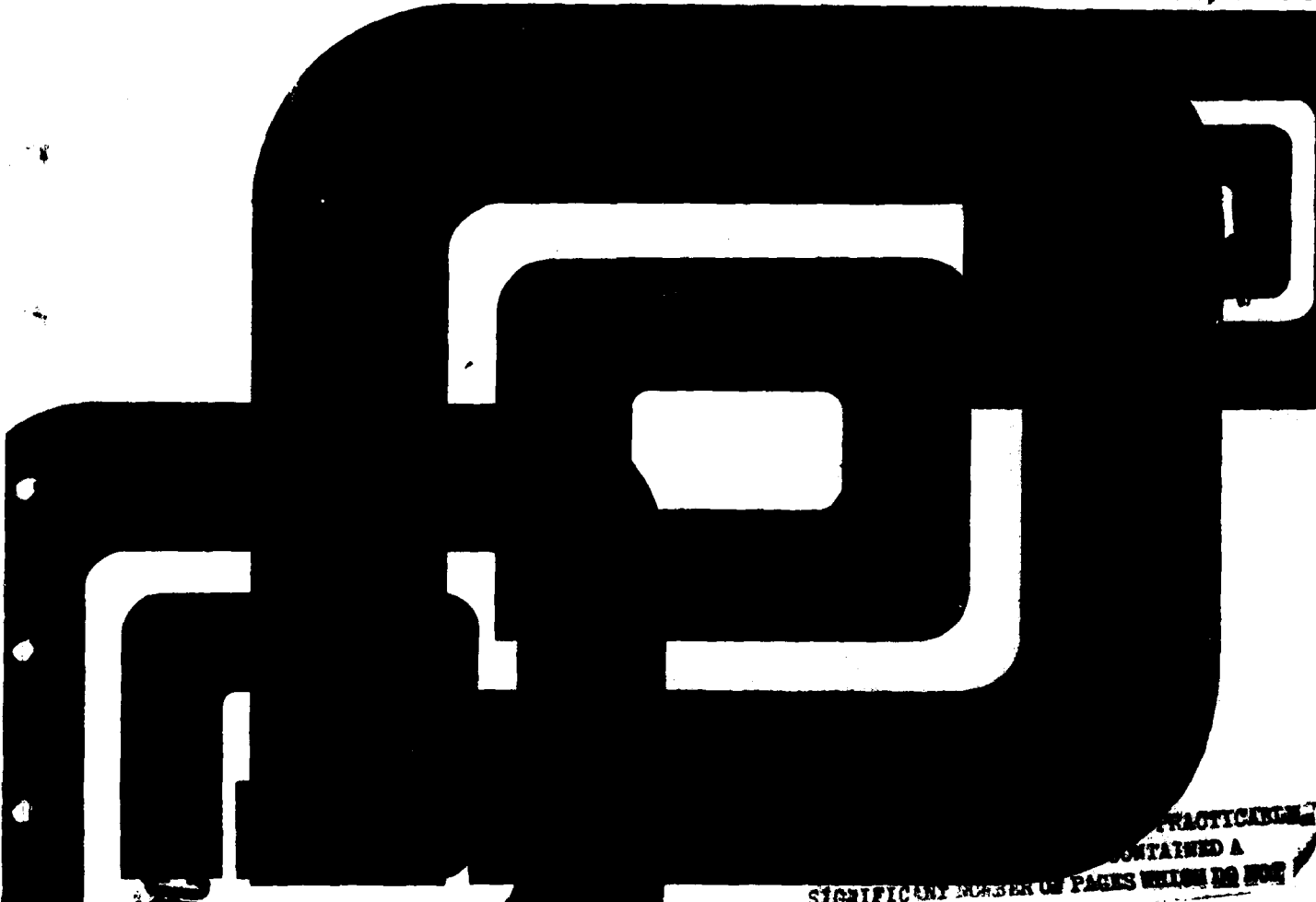
FINAL TECHNICAL REPORT PR 80-25-315.43

AN ASSESSMENT OF THE IMPORTANCE OF TECHNOLOGIES TO MILITARY CAPABILITIES

Richard R. Stewart
Gary A. Frisvold

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by

Richard R. Stewart and Gary A. Frisvold

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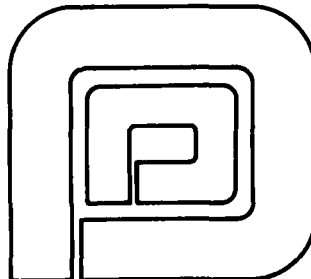
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AN ASSESSMENT OF THE IMPORTANCE OF TECHNOLOGIES TO MILITARY CAPABILITIES

1.0 INTRODUCTION

In the Export Administration Act of 1979, Congress required the Department of Defense to identify lists of critical technologies in a form that can be used in export control. In response to this requirement, the Under Secretary of Defense (Research and Engineering) established a project to link technologies and mission areas by quantifying the value of each substantially critical technology with regard to its likely impact on the future military balance.

To support the technologies analysis effort, a Mission-Technology Correlation Task Force (MTCTF) was established to be chaired by Dr. Paul J. Berenson, Deputy Assistant to the Secretary of Defense (Atomic Energy). Specific objectives of the MTCTF are to:

- o establish clear relationship from a "top-down" perspective between military missions and the key technologies underlying mission capability;
- o select mission-technology correlation assessment methodologies relating military mission capability to the weapon systems providing that capability, and finally to the technology providing the system capability; and
- o identify and prioritize technologies for each U.S. and Soviet mission.

Decisions and Designs, Inc. (DDI), had examined a problem quite similar to this one for the Director of the Defense Advanced Research Projects Agency (DARPA) in 1978. Dr. Berenson read the DDI report¹ and requested similar technical assistance for the current MTCTF analysis.

The analysis described in this report is purposely limited to three mission areas: land-based ICBM strike, tactical air warfare (close air support and battlefield interdiction), and theater nuclear warfare (air-delivered). The limitation is based upon several factors. First, a good sense of the importance of various technologies could be obtained by looking at these three mission areas. Second, for an initial small investment, it would be possible to test the methodology and, if successful, additional mission areas could be examined later on. In each of the three areas the technologies are prioritized on the basis of their importance to the U.S. and their potential contribution to Soviet capability. Thus, an important technology which could be applied to the development of an improved Soviet military capability would receive a high score and thus place high on the list of those technologies which should be restricted. The assessments used in the ICBM mission analysis reflect the views of a Defense Intelligence Agency Soviet ICBM specialist. The assessments used in the tactical air and theater nuclear analysis reflect the views of U.S. research and engineering specialists.

The next section of this report describes in more detail the technical approach used in this analysis. Section 3.0 describes the results achieved and prioritizes the list of technologies which should not be exported.

¹Fossum, R. Evaluation of Strategic-Force-Related Technologies, prepared for the Defense Science Board, July 1978.

2.0 METHODOLOGICAL APPROACH

2.1 Model Structure

The methodology used in this analysis, Multi-Attribute Utility Analysis (MAUA), is employed in studies requiring the quantification of complex alternatives that have values on a large number of alternatives. In this analysis, each technology could potentially improve Soviet capability in several areas. For example, plasma spraying technology has the potential to enhance Soviet ICBM development programs pertaining to reentry vehicle heat shields and nose tips, and to bombs, bomblets, and rockets. MAUA provides a methodology for quantifying the value of each of these contributions and combining them to obtain an overall quantification of the value of the technology.

A MAUA model is hierarchical in nature, starting with the specified top-level factor for which an overall score is desired. This factor is successively decomposed into subfactors in descending levels of the hierarchy, such that each successive level is more specific than the preceding one. At the lowest level of the hierarchy are subfactors for which scores are directly assessed by the appropriate experts. For this particular problem, three hierarchical structures (or models) representing mission areas were formulated. The three structures (one for ICBM Forces, one for Air Warfare Forces, and one for Theater Nuclear Forces) are shown in Figures 2-1, 2-2, and 2-3.

Referring to the structure for Tactical Air Warfare as an example (Figure 2-2), the elements of the problems are first separated into Surveillance/Targeting/Damage Assessment and Weapons Delivery. These are identified as 1.1 and 1.2. Surveillance/Targeting/Damage Assessment is further

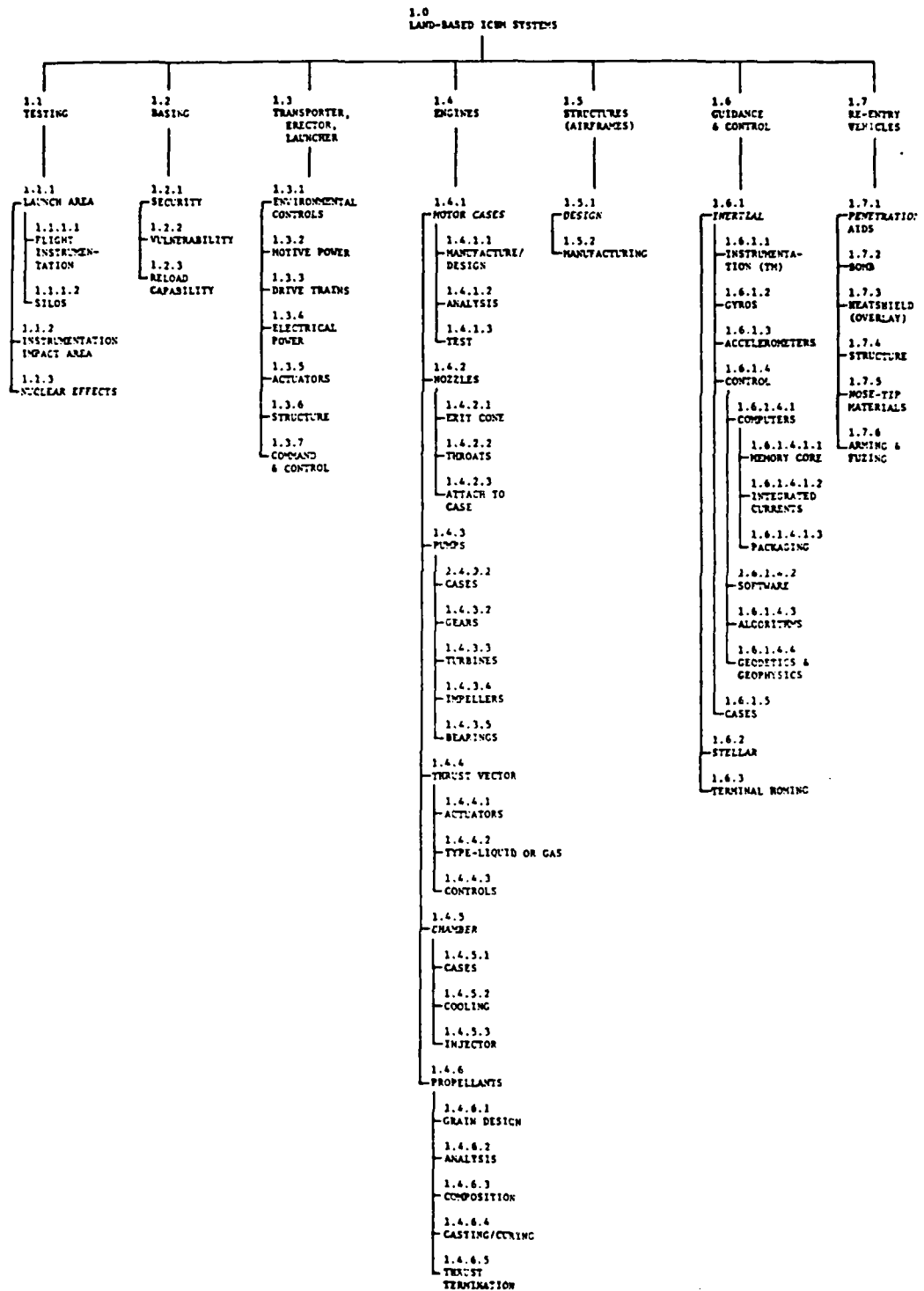


Figure 2-1
ICBM STRUCTURE

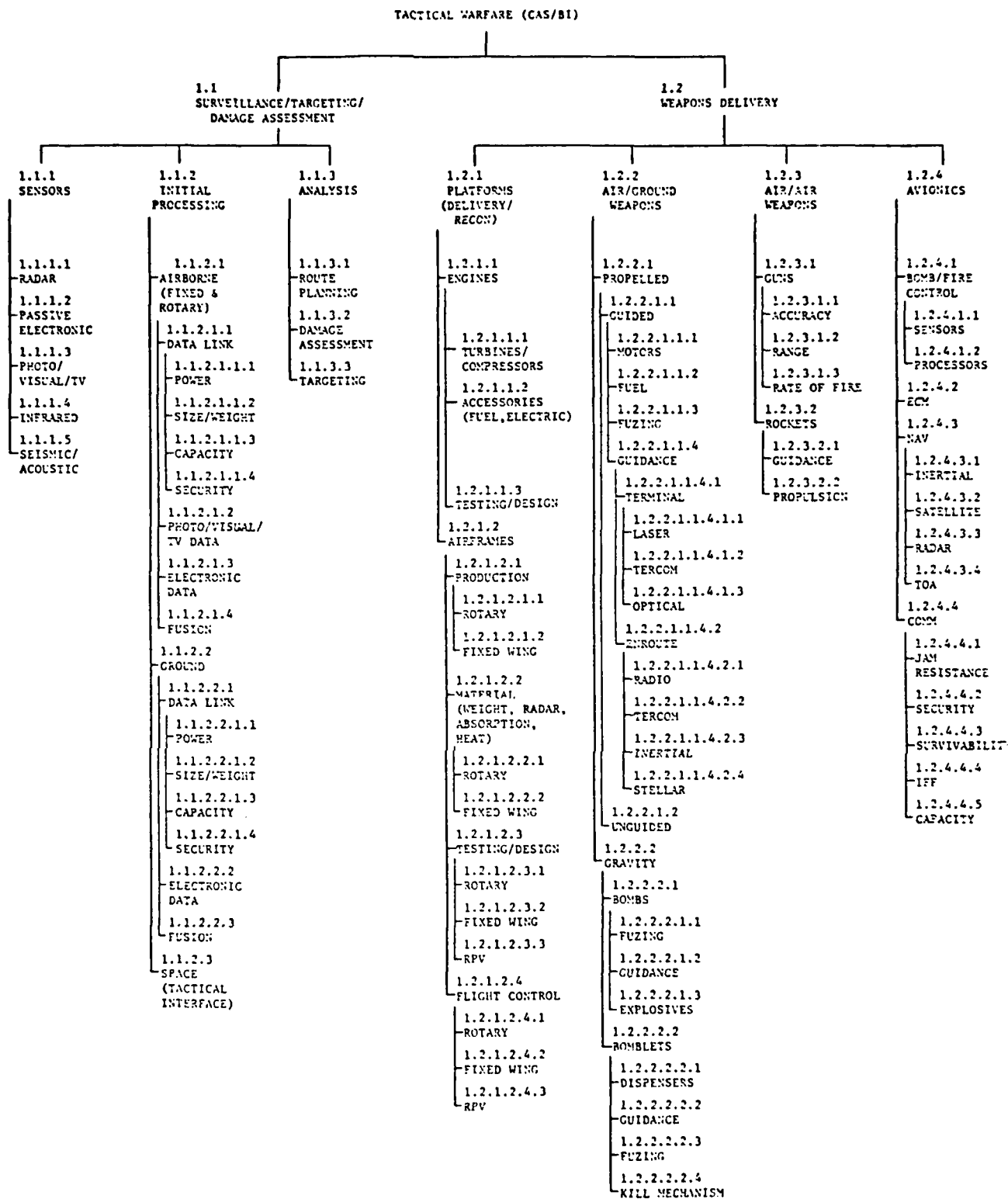
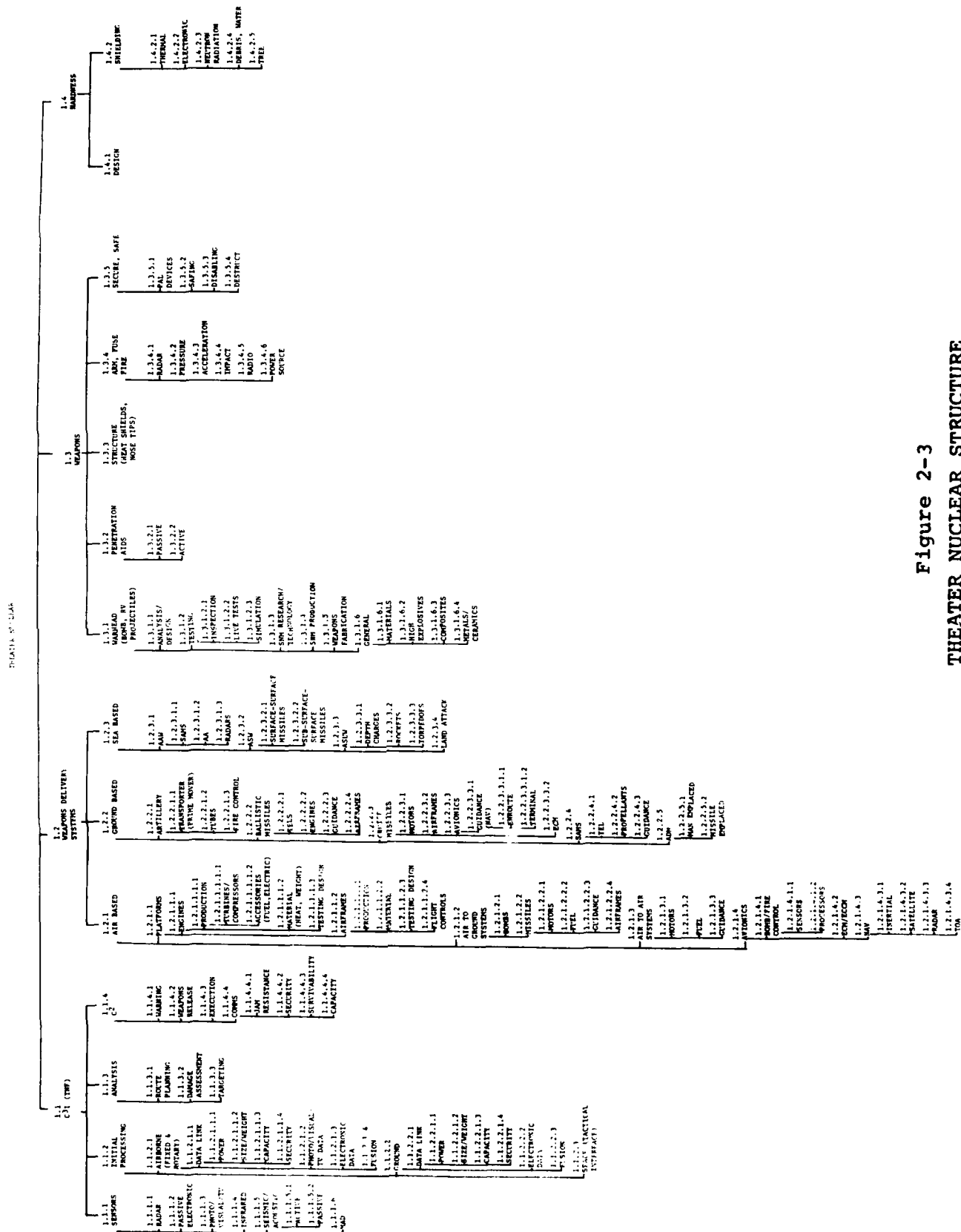


Figure 2-2
TACTICAL AIR STRUCTURE



decomposed into Sensors, Initial Processing, and Analysis, identified as 1.1.1, 1.1.2, and 1.1.3. Similarly, Sensors is divided into Radar, Passive Electronic, Photo/Visual/TV, Infrared, and Seismic/Acoustic. For these five types of sensors, the relative values of applicable technologies can be directly assessed. Similarly, the remainder of the structure is further decomposed until the values of technologies can be assessed at the lowest level of the hierarchy.

Once a hierarchical structure has been created which decomposes high-level factors into subfactors that correspond to observable elements, several steps must be accomplished. The first is determination of the combination rules by which the elements combine to determine the value of those subfactors. Such rules take on different forms depending on the value dependencies among elements. Independent elements can be combined additively, whereas more complex combination rules, often multiplicative in nature, must be utilized to incorporate value-wise dependencies. Similarly, combination rules must be established for subfactors at all levels of the hierarchy. The combination rules, once properly formulated, provide for aggregation of values up through the hierarchy.

Frequently, subfactors which appear to be very dependent can be appropriately assumed to be value independent if only marginal changes in value are considered. For example, in Figure 2-2, both sensors and initial processing are required for surveillance, targeting, and damage assessment. One capability without the other has essentially no value. However, by first assuming some initial capabilities in both sensors and processing, and then evaluating relatively small improvements in sensor or processing capability, the values of these improvements can be combined additively.

2.2 Assessments for the Model

Given the structure with appropriate combination rules, several additional steps are necessary. First, plausible ranges must be defined which encompass all variations likely to be observed. These ranges are necessary to allow meaningful judgments about the value of a particular technology to an element of the mission area. A similar judgment or assessment must be made about each technology for each sub-element of the structure. Such judgments are made using a 0-to-100 scale where different points along the scale represent the potential value of a technology to an element of the structure. For this analysis, the zero represents current capability and the 100 represents the improved capability given access to the advanced U.S. technology.

Also assessed for each element is its relative importance. For this analysis, weights are used to reflect the importance of all the technologies to the U.S. weapons development program or the importance (size) of the gap which exists between the U.S. and the USSR weapons capability. For the ICBM analysis, weights were assessed by a U.S. intelligence expert. A large number indicates that a large gap exists and that, potentially, the Soviets could be helped if advanced technology were made available to them. The values reflect the percent of the gap that could be filled if one particular U.S. technology were made available.

To conduct the evaluation, the model is implemented on an interactive computer using graphic displays. Because the model structure is, by nature, traceable and visible, it can be quickly examined level by level, factor by factor, for purposes of understanding observed outputs. (See Figures 2-4a and b, printouts which show the level-by-level weights and values for eight technologies applicable to the Tactical Air Warfare problem.) Importance weights, value functions,

1 - TAC WAR									
FACTOR	WT	001	002	003	005	007	008	010	012
1) PLATFORM	(33)	6.50	1.25	12.50	4.88	3.13	6.88	8.00	7.50
2) WEAPONS	(28)	.76	.00	9.35	.00	.00	.10	1.88	.96
3) C3/I	(39)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		2.36	.41	6.72	1.61	1.03	2.30	3.16	2.74
1.1 - TAC WAR - PLATFORM									
FACTOR	WT	001	002	003	005	007	008	010	012
1) ENGINES	*(63)	8.00	2.00	8.00	6.00	5.00	5.00	5.00	12.00
2) AIRFRAMES	*(38)	4.00	.00	20.00	3.00	.00	10.00	13.00	.00
TOTAL		6.50	1.25	12.50	4.88	3.13	6.88	8.00	7.50
1.2 - TAC WAR - WEAPONS									
FACTOR	WT	001	002	003	005	007	008	010	012
1) CASNG/MTRS	(34)	.59	.00	22.18	.00	.00	.00	.00	1.18
2) INTERNALS	(47)	1.21	.00	4.04	.00	.00	.21	4.04	1.21
3) GUIDANCE	(20)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.76	.00	9.35	.00	.00	.10	1.88	.96
1.2.1 - TAC WAR - WEAPONS - CASNG/MTRS									
FACTOR	WT	001	002	003	005	007	008	010	012
1) GUNS	*(41)	.00	.00	11.00	.00	.00	.00	.00	.00
2) ROCKETS	*(41)	1.00	.00	30.00	.00	.00	.00	.00	2.00
3) BMB/RMBLTS	*(18)	1.00	.00	30.00	.00	.00	.00	.00	2.00
TOTAL		.59	.00	22.18	.00	.00	.00	.00	1.18
1.2.2 - TAC WAR - WEAPONS - INTERNALS									
FACTOR	WT	001	002	003	005	007	008	010	012
1) WARHD/CONV	*(40)	3.00	.00	10.00	.00	.00	.00	10.00	3.00
2) FUZING	*(21)	.00	.00	.00	.00	.00	1.00	.00	.00
3) PROPELNTS	*(38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		1.21	.00	4.04	.00	.00	.21	4.04	1.21
1.2.3 - TAC WAR - WEAPONS - GUIDANCE									
FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR	*(33)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN	*(11)	.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC	*(56)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

Figure 2-4a
LEVEL-BY-LEVEL DISPLAY

1.3 - TAC WAR - C3/I									
FACTOR	WT	001	002	003	005	007	008	010	012
1) EW	*(9)	.00	.00	.00	.00	.00	.00	.00	.00
2) NAV	(10)	.00	.00	.00	.00	.00	.00	.00	.00
3) COMM	*(.22)	.00	.00	.00	.00	.00	.00	.00	.00
4) SURV	(39)	.00	.00	.00	.00	.00	.00	.00	.00
5) TARGETING	(20)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.2 - TAC WAR - C3/I - NAV									
FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR	*(42)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN	*(33)	.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC	*(25)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.4 - TAC WAR - C3/I - SURV									
FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR	*(48)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN	*(24)	.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC	*(29)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.5 - TAC WAR - C3/I - TARGETING									
FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR	*(29)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN	*(14)	.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC	*(57)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

Figure 2-4a (Con't.)
LEVEL-BY-LEVEL DISPLAY

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NODE	WEIGHT	SYSTEM SCORES							
		001	002	003	005	007	008	010	012
1 - TAC WAR (WT: 100)									
1.1 - PLATFORM (WT: 33)									
1.1.1 - ENGINES (WT: 63)		8	2	8	6	5	5	5	12
1.1.2 - AIRFRAMES (WT: 38)		4	0	20	3	0	10	13	0
1.2 - WEAPONS (WT: 28)									
1.2.1 - CASNG/MTRS (WT: 34)									
1.2.1.1 - GUNS (WT: 41)		0	0	11	0	0	0	0	0
1.2.1.2 - ROCKETS (WT: 41)		1	0	30	0	0	0	0	2
1.2.1.3 - BMR/BRBLTS (WT: 18)		1	0	30	0	0	0	0	2
1.2.2 - INTERNALS (WT: 47)									
1.2.2.1 - WARHD/CONV (WT: 40)		3	0	10	0	0	0	10	3
1.2.2.2 - FUZING (WT: 21)		0	0	0	0	0	1	0	0
1.2.2.3 - PROPELNTS (WT: 38)		0	0	0	0	0	0	0	0
1.2.3 - GUIDANCE (WT: 20)									
1.2.3.1 - RADAR (WT: 33)		0	0	0	0	0	0	0	0
1.2.3.2 - PASV ELTRN (WT: 11)		0	0	0	0	0	0	0	0
1.2.3.3 - ELCTR OPTC (WT: 56)		0	0	0	0	0	0	0	0
1.3 - C3/I (WT: 39)									
1.3.1 - EW (WT: 9)		0	0	0	0	0	0	0	0
1.3.2 - NAV (WT: 10)									
1.3.2.1 - RADAR (WT: 42)		0	0	0	0	0	0	0	0
1.3.2.2 - PASV ELTRN (WT: 33)		0	0	0	0	0	0	0	0
1.3.2.3 - ELCTR OPTC (WT: 25)		0	0	0	0	0	0	0	0
1.3.3 - COMM (WT: 22)		0	0	0	0	0	0	0	0
1.3.4 - SURV (WT: 39)									
1.3.4.1 - RADAR (WT: 48)		0	0	0	0	0	0	0	0
1.3.4.2 - PASV ELTRN (WT: 24)		0	0	0	0	0	0	0	0
1.3.4.3 - ELCTR OPTC (WT: 29)		0	0	0	0	0	0	0	0
1.3.5 - TARGETING (WT: 20)									
1.3.5.1 - RADAR (WT: 29)		0	0	0	0	0	0	0	0
1.3.5.2 - PASV ELTRN (WT: 14)		0	0	0	0	0	0	0	0
1.3.5.3 - ELCTR OPTC (WT: 57)		0	0	0	0	0	0	0	0

Figure 2-4b
LEVEL-BY-LEVEL DISPLAY

and combination rules can be examined for validity. The reasons for value judgments used in the model can also be stored in the computer and made accessible to the analyst. Disagreements about weights or other inputs can be quickly resolved by conducting sensitivity analyses and changing whatever inputs are in question.

3.0 RESULTS OBTAINED FROM THE ANALYSIS

3.1 The ICBM Technology-Related Analysis

The structure for land-based ICBM strike forces (Figure 2-1) was developed with the assistance of staff personnel from the offices of the Deputy Under Secretary of Defense for Research and Engineering (Strategic and Space Systems). As noted earlier, the weights used to reflect areas of Soviet strengths and weaknesses are based upon inputs from a Defense Intelligence Agency ballistic missile specialist. The scores used to reflect the potential value of a particular technology to the Soviets are based upon discussions with U.S. research and development personnel, as well as the DIA missile specialist. All of the weights and scores used in the ICBM analysis are displayed in matrix form in the printout of the ICBM structure in Appendix A. In this appendix, the number at the top of each column corresponds to one of the technologies in Table 3-1. For example, the first column gives the scores for Technology #001, Deep-Drawn, Thin Walled Metal Parts Design. These scores are multiplied by the importance weights to obtain summary scores for the technologies. For example, Technology 001 was assessed a score of 15 for Node 1.4.1.1, Manufacture/-Design of Motor Cases for Engines. The weight for Node 1.4.1.1 is 83 percent of the importance of Node 1.4.1, Motor Cases. Since Technology 001 applies to no other factor under Motor Cases, the summary score for Motor Cases for Technology 001 is the product of 15 and 83 percent, or 12.5. Continuing up the hierarchical structure, Motor Cases represents 32 percent of the importance under Node 1.4, Engines. Multiplying this weight (32) times the summary score for Motor Cases (12.5) gives the summary score for Technology 001 for Engines (4.04). The final step multiplies the summary score for Engines by the weight for Engines to yield the overall score (.81) for Technology 001.

Referring to the ICBM printout (Appendix A), there are 46 columns representing 46 different technologies from the list of 102 that was compiled for this project. The list of 102 technologies (Table 3-1) represents a further refinement of a list prepared by the Institute for Defense Analysis (IDA) for the MTCTF. The "refined" list is based upon discussions with personnel from DUSD(R&E) who provided the assessments for the three analyses. It contains additions, deletions, and refinements of statements defining the technologies in the original list obtained from IDA.

3.2 General Comments Concerning the Analysis

During the time available for this analysis, it was not possible to prepare a completely satisfactory listing of all the technologies which should be considered. The selection of technologies and how they are defined has a significant impact on the results. For example, a technology can be defined as a general area of interest or as several very specific interests. In the case of "composites," it can be defined and listed as "composite technologies" (which was done for the Tactical Air and Theater Nuclear analysis), or as several different technologies such as "windings," "boron fibers," "bondings," and so on. The grain size affects results; large grain size (broad definitions) impacts many different areas of weapon system development and scores higher than a more specifically defined subset of a technology. Time permitting, the best solution would be to define each technology as specifically as possible, score each one individually, and combine the resulting scores into more workable general descriptions.

Another problem with the list of technologies is to avoid the apples, oranges, and lemons dilemma. For example, it is easy to mix and difficult to compare products (microwave tubes) with processes (oralloy production) with engineering

DEEP DRAWN, THIN WALLED METAL PARTS DESIGN	001
BEARINGLESS ROTORS	002
COMPOSITE TECHNOLOGIES (WINDINGS, BONDINGS, ETC.)	003
ELECTROSTREAM HOLE DRILLING	004
HIGH PERFORMANCE WELDING	005
HIGH VACUUM PROCESSES	006
HOT ISOSTATIC PROCESSING	007
NON-DESTRUCTIVE EVALUATION TECHNOLOGY	008
INSPECTION OF ADVANCED COMPOSITE STRUCTURES	009
NUMERICAL CONTROL OF MACHINE TOOLS	010
LASER GYRO TECHNOLOGY (A SUBSET OF #50)	011
VACUUM CASTING (AIR COOLED TURBINE BLADES)	012
VAPOR DEPOSITION	013
AMORPHOUS METALS	014
BORON FIBERS (A SUBSET OF #3)	015
CORROSION/EROSION RESISTANT COATINGS	016
HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM	017
METAL MATRIX COMPOSITES (CARBON-CARBON, ORGANIC)	018
OPTICAL THIN FILM MATERIALS	019
POLYAMIDES (INCLUDING KEVLAR)	020
POLYMERS (INC PIEZO-ELECTRIC, PYROELECTRIC, ETC)	021
POWDER METALLURGY (E.G., HIGH COOLING RATE)	022
RADIATION DETECTION MATERIALS	023
SOLID STATE MICROWAVE TECHNOLOGY	024
ULTRAHIGH CARBON STEELS (SUPERELASTICITY)	025
HIGH ENERGY STORAGE (ACCUMULATORS)	026
IMAGE ENHANCEMENT TECHNIQUES	027
SOLID STATE ELECTRO-OPTICAL DETECTORS	028
ISOTOPIC/MOLECULAR COMPOSITION	029
BONDING AGENTS AND BINDERS	030
ADVANCED AIRFOIL AND THREE-DIMENSIONAL WING DESIGN	031
CONTROL CONFIGURED VEHICLE (FLY-BY-WIRE)	032
SEGMENTED-MAGNET MOTORS AND GENERATORS	033
CENTRIFUGAL COMPRESSORS FOR SMALL TURBINE ENGINES	034
ELECTROLYTE BATTERY DEVELOPMENT	035
PROPULSION CONTROLS, MATERIALS AND SYSTEMS	036
PLATFORM STABILIZATION	037
MICROWAVE TUBES (INCLUDES TWTS ETC)	038
CONFORMAL OR ADAPTIVE ARRAY ANTENNAE	039
HIGH DYNAMIC RANGE RECEIVERS	040
SOLID STATE TRANSMITTERS/FREQUENCY AMPLIFIERS	041
SPECIALIZED SPACE ANTENNAS	042
WIDE-BAND LOW NOISE RECEIVERS	043
ADVANCED FORGING TECHNOLOGY	044
HIGH DENSITY MATERIALS	045
HIGH DENSITY OPTICAL RECORDING	046
PLASMA DISPLAYS	047
FLUIDICS	048
MILLIMETER WAVE TUBES	049
INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT	050
CERAMIC TECHNOLOGY	051
PROPELLANT MODELS	052
ELECTRONIC SCORING/MACHINERY	053
VERY LARGE SCALE INTEGRATED CIRCUITS	054
VERY HIGH SPEED INTEGRATED CIRCUITS	055

Table 3-1
LIST OF TECHNOLOGIES

WARHEAD MODELS	056
WAVE SHAPING	057
HIGH ENERGY LASER TECHNOLOGY	058
LASER INTERFEROMETRY	059
LASER HOLOGRAPHY	060
PLASMA SPRAY TECHNOLOGY	061
HIGH PERFORMANCE A/D CONVERTERS	062
HIGH PERFORMANCE CATHODE RAY TUBES	063
MICRO DENSITOMETERS	064
ULTRA STABLE OSCILLATORS	065
ELECTRON ACCELERATORS	066
FLASH RADIOGRAPHY	067
GRAVITY GRADIOMETERS	068
HIGH PRECISION CLOCKS/FREQUENCY STDS (SUBSET OF 65)	069
ULTRA HIGH-SPEED PHOTOGRAPHY	070
VERY WIDE-BAND RECORDERS	071
COMPUTER-AIDED DESIGN	072
COMPUTER DISC SYSTEMS	073
LARGE MEMORY DESIGN	074
MEMORY TECHNOLOGIES (BURBLE, HI-DENSITY CORES, ETC)	075
OPTICAL COMPUTING (FORM OF SIGNAL PROCESSING)	076
COMPUTERIZED IMAGE INTERPRETATION	077
PENETRATION AIDS TECHNOLOGY	078
STELLAR NAVIGATION TECHNOLOGY	079
SOLID PROPELLANTS	080
LIQUID PROPELLANTS	081
SLURRIED PROPELLANTS	082
I/O TECHNOLOGY (SOFTWARE AND HARDWARE)	083
COMPUTER/PROCESSOR/SYSTEM ARCHITECTURE	084
HIGH SPEED ELECTRONICS (OSCILLOSCOPES, COUNTERS)	085
PHOTO MULTIPLIER TUBES	086
FIN TECHNOLOGY	087
HIGH POWER OPTICS	088
VIBRATION TESTING (EQUIPMENT TECHNIQUES)	089
DEEP, LARGE DIAMETER HOLE DRILLING	090
VAPOR DEPOSITION	091
ISOTOPE SEPARATION	092
ORALLOY PRODUCTION	093
PLUTONIUM EXTRACTION	094
TRITIUM RECOVERY	095
SEISMIC TECHNOLOGY (WPN EFFECTS, TEST SEC. DEVICES)	096
IGNITION PHENOMENA	097
OPTICAL FIBER CABLES, ASSEMBLIES, GUIDES	098
EXTERIOR/INTERIOR BALLISTICS (MODELS)	099
RADIO-CHEMICAL TECHNIQUES	100
SPECIAL NUCLEAR MATERIALS	101
WEAPONIZATION (NUCLEAR)	102

Table 3-1 (Con't.)
LIST OF TECHNOLOGIES

"know-how" (deep, large diameter hole drilling) with advanced technology (solid state microwave technology). In this project, the list of technologies was taken largely as a given, and most of the effort was focused on the analysis. This consisted mainly of developing the structures and eliciting the weights and scores to be used as input data. If the project were to be repeated or extended, effort would be focused on defining the technologies.

3.3 The ICBM Results

With the above-noted qualifications, the results obtained from the analysis provide a useful way of examining the potential value of various technologies to a foreign country. There are four priority listings in the form of computer runs to be reviewed: one from the ICBM analysis (Table 3-2), one from the Tactical Air analysis (Table 3-3), one from the Theater Nuclear analysis (Table 3-4), and one from the ICBM and Theater Nuclear combined (Table 3-5).

The numerical values were normalized so that each column sums to 100. Referring to the ICBM results (Table 3-2), one implication is that if all of the listed technologies of potential value to the Soviet ICBM development program were equal to 100, an average technology would be worth approximately 02 ($100 \div 46$ technologies). By comparison, "metal matrix composites"--highest on the list with a score of 16--is about 8 times more valuable than an "average" technology such as "high temperature coatings for super alloys" with a score of 1.91. The lowest on the list is "amorphous metals" with a score of .03. This low score may be misleading and, instead of indicating that the technology would be of little value to an adversary nation, reflects the fact that almost no one that we spoke with knew how amorphous metals are used. This emphasized the need, stated earlier, for further refinement and definition of the list of technologies.

AMORPHOROUS METALS	0.03
COMPUTER/PROCESSOR/SYSTEM ARCHITECTURE	0.06
VIBRATION TESTING (EQUIPMENT TECHNIQUES)	0.06
SEGMENTED-MAGNET MOTORS AND GENERATORS	0.07
ELECTROLYTE BATTERY DEVELOPMENT	0.13
POLYMERS (INC PIEZO-ELECTRIC, PYROELECTRIC, ETC)	0.17
COMPUTER DISC SYSTEMS	0.23
ULTRAHIGH CARBON STEELS (SUPERPLASTICITY)	0.25
POLYAMIDES (INCLUDING KEVLAR)	0.27
BEARINGLESS ROTORS	0.29
OPTICAL FIBER CABLES, ASSEMBLIES, GUIDES	0.49
ULTRA HIGH-SPEED PHOTOGRAPHY	0.65
DEEP DRAWN, THIN WALLED METAL PARTS DESIGN	0.81
ULTRA STABLE OSCILLATORS	0.82
NUMERICAL CONTROL OF MACHINE TOOLS	0.85
LASER GYRO TECHNOLOGY (A SUBSET OF #50)	0.87
MICROWAVE TUBES (INCLUDES TWTS ETC)	0.88
HIGH ENERGY STORAGE (ACCUMULATORS)	0.90
ELECTRON ACCELERATORS	0.91
HIGH POWER OPTICS	0.94
CORROSION/EROSION RESISTANT COATINGS	1.11
VERY WIDE-BAND RECORDERS	1.15
SEISMIC TECHNOLOGY (WPN EFFECTS, TEST SEC. DEVICES)	1.18
SOLID STATE MICROWAVE TECHNOLOGY	1.39
GRAVITY GRADIOMETERS	1.61
BONDING AGENTS AND BINDERS	1.64
ADVANCED AIRFOIL AND THREE-DIMENSIONAL WING DESIGN	1.64
BORON FIBERS (A SUBSET OF #3)	1.70
COMPUTER-AIDED DESIGN	1.85
HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM	1.91
SOLID STATE ELECTRO-OPTICAL DETECTORS	2.55
PLATFORM STABILIZATION	2.60
SOLID PROPELLANTS	2.86
VERY LARGE SCALE INTEGRATED CIRCUITS	2.95
HIGH VACUUM PROCESSES	3.27
COMPOSITE TECHNOLOGIES (WINDINGS, BONDINGS, ETC.)	3.45
MEMORY TECHNOLOGIES (BUBBLE, HI-DENSITY CORES, ETC)	3.48
HIGH PERFORMANCE A/D CONVERTERS	3.90
INSPECTION OF ADVANCED COMPOSITE STRUCTURES	3.98
PENETRATION AIDS TECHNOLOGY	4.09
SOLID STATE TRANSMITTERS/FREQUENCY AMPLIFIERS	4.24
NON-DESTRUCTIVE EVALUATION TECHNOLOGY	5.93
PLASMA SPRAY TECHNOLOGY	6.11
INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT	6.25
PROPULSION CONTROLS, MATERIALS AND SYSTEMS	6.40
METAL MATRIX COMPOSITES (CARBON-CARBON, ORGANIC)	16.12

Table 3-2
ICBM RESULTS

HIGH ENERGY STORAGE (ACCUMULATORS)	0.08
OPTICAL FIBER CABLES, ASSEMBLIES, GUIDES	0.12
ADVANCED FORGING TECHNOLOGY	0.16
FLUIDICS	0.22
BONDING AGENTS AND BINDERS	0.27
ELECTROLYTE BATTERY DEVELOPMENT	0.34
BEARINGLESS ROTORS	0.41
WAVE SHAPING	0.42
MILLIMETER WAVE TUBES	0.46
PLASMA DISPLAYS	0.49
HIGH PERFORMANCE CATHODE RAY TUBES	0.49
HIGH DENSITY OPTICAL RECORDING	0.51
HIGH DENSITY MATERIALS	0.52
ELECTRONIC SCORING/MACHINERY	0.52
MEMORY TECHNOLOGIES (BUBBLE, HI-DENSITY CORES, ETC)	0.64
SLURRIED PROPELLANTS	0.69
CONTROL CONFIGURED VEHICLE (FLY-BY-WIRE)	0.74
SEGMENTED-MAGNET MOTORS AND GENERATORS	0.74
LIQUID PROPELLANTS	0.89
HOT ISOSTATIC PROCESSING	1.03
ADVANCED AIRFOIL AND THREE-DIMENSIONAL WING DESIGN	1.15
POWDER METALLURGY (E.G., HIGH COOLING RATE)	1.17
HIGH DYNAMIC RANGE RECEIVERS	1.23
MICROWAVE TUBES (INCLUDES TWTS ETC)	1.24
ULTRA STABLE OSCILLATORS	1.29
CENTRIFUGAL COMPRESSORS FOR SMALL TURBINE ENGINES	1.44
WIDE-BAND LOW NOISE RECEIVERS	1.49
HIGH PERFORMANCE WELDING	1.61
CORROSION/EROSION RESISTANT COATINGS	1.69
SOLID PROPELLANTS	1.79
INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT	2.04
NON-DESTRUCTIVE EVALUATION TECHNOLOGY	2.30
DEEP DRAWN, THIN WALLED METAL PARTS DESIGN	2.34
HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM	2.34
SOLID STATE TRANSMITTERS/FREQUENCY AMPLIFIERS	2.42
CERAMIC TECHNOLOGY	2.47
CONFORMAL OR ADAPTIVE ARRAY ANTENNAE	2.64
VACUUM CASTING (AIR COOLED TURBINE BLADES)	2.74
EXTERIOR/INTERIOR BALLISTICS (MODELS)	2.84
COMPUTER-AIDED DESIGN	2.97
NUMERICAL CONTROL OF MACHINE TOOLS	3.16
PROPULSION CONTROLS, MATERIALS AND SYSTEMS	3.24
SPECIALIZED SPACE ANTENNAS	3.31
VERY LARGE SCALE INTEGRATED CIRCUITS	4.53
SOLID STATE ELECTRO-OPTICAL DETECTORS	5.01
ULTRAHIGH CARBON STEELS (SUPERPLASTICITY)	5.53
SOLID STATE MICROWAVE TECHNOLOGY	5.61
COMPOSITE TECHNOLOGIES (WINDINGS, BONDINGS, ETC.)	6.72
VERY HIGH SPEED INTEGRATED CIRCUITS	7.04
HIGH PERFORMANCE A/D CONVERTERS	8.10

Table 3-3
TACTICAL AIR WARFARE RESULTS

ISOTOPIC/MOLECULAR COMPOSITION	0.02
MICRO DENSITOMETERS	0.02
LASER HOLOGRAPHY	0.06
HIGH ENERGY STORAGE (ACCUMULATORS)	0.07
COMPUTER DISC SYSTEMS	0.08
ELECTRON ACCELERATORS	0.09
FLASH RADIOGRAPHY	0.09
PIN TECHNOLOGY	0.09
IMAGE ENHANCEMENT TECHNIQUES	0.10
COMPUTERIZED IMAGE INTERPRETATION	0.10
DEEP, LARGE DIAMETER HOLE DRILLING	0.11
ADVANCED FORGING TECHNOLOGY	0.14
HIGH VACUUM PROCESSES	0.16
PLASMA SPRAY TECHNOLOGY	0.16
VAPOR DEPOSITION	0.16
RADIATION DETECTION MATERIALS	0.20
FLUIDICS	0.20
SEISMIC TECHNOLOGY (WPN EFFECTS, TEST SEC. DEVICES)	0.20
VERY WIDE-BAND RECORDERS	0.24
PHOTO MULTIPLIER TUBES	0.24
ULTRA HIGH-SPEED PHOTOGRAPHY	0.28
ELECTROLYTE BATTERY DEVELOPMENT	0.31
AMORPHOUS METALS	0.32
BONDING AGENTS AND BINDERS	0.32
COMPUTER/PROCESSOR/SYSTEM ARCHITECTURE	0.36
BEARINGLESS ROTORS	0.37
WAVE SHAPING	0.38
LASER INTERFEROMETRY	0.38
MILLIMETER WAVE TUBES	0.42
PLASMA DISPLAYS	0.44
HIGH PERFORMANCE CATHODE RAY TUBES	0.44
I/O TECHNOLOGY (SOFTWARE AND HARDWARE)	0.45
HIGH DENSITY OPTICAL RECORDING	0.46
HIGH DENSITY MATERIALS	0.47
ELECTRONIC SCORING/MACHINERY	0.47
SLURRIED PROPELLANTS	0.62
SEGMENTED-MAGNET MOTORS AND GENERATORS	0.66
CONTROL CONFIGURED VEHICLE (FLY-BY-WIRE)	0.67
RADIO-CHEMICAL TECHNIQUES	0.68
SPECIAL NUCLEAR MATERIALS	0.68
OPTICAL FIBER CABLES, ASSEMBLIES, GUIDES	0.72
LIQUID PROPELLANTS	0.80
MEMORY TECHNOLOGIES (BUBBLE, HI-DENSITY CORES, ETC)	1.02
ADVANCED AIRFOIL AND THREE-DIMENSIONAL WING DESIGN	1.04
HIGH DYNAMIC RANGE RECEIVERS	1.11
HOT ISOSTATIC PROCESSING	1.17
POWDER METALLURGY (E.G., HIGH COOLING RATE)	1.22
MICROWAVE TUBES (INCLUDES TWTS ETC)	1.23
ULTRA STABLE OSCILLATORS	1.25
CENTRIFUGAL COMPRESSORS FOR SMALL TURBINE ENGINES	1.30
WIDE-BAND LOW NOISE RECEIVERS	1.34
CORROSION/EROSION RESISTANT COATINGS	1.48
HIGH PERFORMANCE WELDING	1.53
WEAPONIZATION (NUCLEAR)	1.58
SOLID PROPELLANTS	1.60
INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT	1.84

Table 3-4
THEATER NUCLEAR RESULTS

NON-DESTRUCTIVE EVALUATION TECHNOLOGY	2.11
DEEP DRAWN, THIN WALLED METAL PARTS DESIGN	2.12
HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM	2.12
SOLID STATE TRANSMITTERS/FREQUENCY AMPLIFIERS	2.19
CERAMIC TECHNOLOGY	2.22
CONFORMAL OR ADAPTIVE ARRAY ANTENNAE	2.38
VACUUM CASTING (AIR COOLED TURBINE BLADES)	2.47
EXTERIOR/INTERIOR BALLISTICS (MODELS)	2.56
COMPUTER-AIDED DESIGN	2.69
PROPULSION CONTROLS, MATERIALS AND SYSTEMS	2.92
NUMERICAL CONTROL OF MACHINE TOOLS	2.95
SPECIALIZED SPACE ANTENNAS	2.98
VERY LARGE SCALE INTEGRATED CIRCUITS	4.36
SOLID STATE ELECTRO-OPTICAL DETECTORS	4.51
ULTRAHIGH CARBON STEELS (SUPERPLASTICITY)	4.98
SOLID STATE MICROWAVE TECHNOLOGY	5.06
COMPOSITE TECHNOLOGIES (WINDINGS, BONDINGS, ETC.)	6.05
VERY HIGH SPEED INTEGRATED CIRCUITS	6.73
HIGH PERFORMANCE A/D CONVERTERS	7.81

Table 3-4 (Con't.)
THEATER NUCLEAR RESULTS

ELECTROSTREAM HOLE DRILLING	0.00
VAPOR DEPOSITION	0.00
OPTICAL THIN FILM MATERIALS	0.00
PROPELLANT MODELS	0.00
WARHEAD MODELS	0.00
HIGH ENERGY LASER TECHNOLOGY	0.00
HIGH PRECISION CLOCKS/FREQUENCY STDS (SUBSET OF 65)	0.00
LARGE MEMORY DESIGN	0.00
OPTICAL COMPUTING (FORM OF SIGNAL PROCESSING)	0.00
STELLAR NAVIGATION TECHNOLOGY	0.00
HIGH SPEED ELECTRONICS (OSCILLOSCOPES, COUNTERS)	0.00
ISOTOPE SEPARATION	0.00
ORALLOY PRODUCTION	0.00
PLUTONIUM EXTRACTION	0.00
TRITIUM RECOVERY	0.00
IGNITION PHENOMENA	0.00
ISOTOPIC/MOLECULAR COMPOSITION	0.01
MICRO DENSITOMETERS	0.01
LASER HOLOGRAPHY	0.03
VIBRATION TESTING (EQUIPMENT TECHNIQUES)	0.03
IMAGE ENHANCEMENT TECHNIQUES	0.05
FLASH RADIOGRAPHY	0.05
COMPUTERIZED IMAGE INTERPRETATION	0.05
FILM TECHNOLOGY	0.05
DEEP, LARGE DIAMETER HOLE DRILLING	0.06
ADVANCED FORGING TECHNOLOGY	0.07
VAPOR DEPOSITION	0.08
POLYMERS (INC PIEZO-ELECTRIC, PYROELECTRIC, ETC)	0.09
RADIATION DETECTION MATERIALS	0.10
FLUIDICS	0.10
PHOTO MULTIPLIER TUBES	0.12
POLYAMIDES (INCLUDING KEVLAR)	0.14
COMPUTER DISC SYSTEMS	0.16
AMORPHOUS METALS	0.18
WAVE SHAPING	0.19
LASER INTERFEROMETRY	0.19
MILLIMETER WAVE TUBES	0.21
COMPUTER/PROCESSOR/SYSTEM ARCHITECTURE	0.21
ELECTROLYTE BATTERY DEVELOPMENT	0.22
PLASMA DISPLAYS	0.22
HIGH PERFORMANCE CATHODE RAY TUBES	0.22
HIGH DENSITY OPTICAL RECORDING	0.23
I/O TECHNOLOGY (SOFTWARE AND HARDWARE)	0.23
HIGH DENSITY MATERIALS	0.24
ELECTRONIC SCORING/MACHINERY	0.24
RADIO-CHEMICAL TECHNIQUES	0.32
SPECIAL NUCLEAR MATERIALS	0.32
BEARINGLESS ROTORS	0.33
CONTROL CONFIGURED VEHICLE (FLY-BY-WIRE)	0.34
SEGMENTED-MAGNET MOTORS AND GENERATORS	0.37
LIQUID PROPELLANTS	0.40
LASER GYRO TECHNOLOGY (A SUBSET OF #50)	0.44
ULTRA HIGH-SPEED PHOTOGRAPHY	0.47
HIGH POWER OPTICS	0.47
HIGH ENERGY STORAGE (ACCUMULATORS)	0.49

Table 3-5
COMBINED RESULTS

ELECTRON ACCELERATORS	0.50
HOT ISOSTATIC PROCESSING	0.59
POWDER METALLURGY (E.G., HIGH COOLING RATE)	0.61
OPTICAL FIBER CABLES, ASSEMBLIES, GUIDES	0.61
CENTRIFUGAL COMPRESSORS FOR SMALL TURBINE ENGINES	0.65
WIDE-BAND LOW NOISE RECEIVERS	0.67
SEISMIC TECHNOLOGY (WPN EFFECTS, TEST SEC. DEVICES)	0.69
VERY WIDE-BAND RECORDERS	0.70
HIGH PERFORMANCE WELDING	0.77
WEAPONIZATION (NUCLEAR)	0.79
GRAVITY GRADIOMETERS	0.81
SLURRIED PROPELLANTS	0.83
BORON FIBERS (A SUBSET OF #3)	0.85
BONDING AGENTS AND BINDERS	0.98
ULTRA STABLE OSCILLATORS	1.04
MICROWAVE TUBES (INCLUDES TWTS ETC)	1.06
CERAMIC TECHNOLOGY	1.11
CONFORMAL OR ADAPTIVE ARRAY ANTENNAE	1.19
VACUUM CASTING (AIR COOLED TURBINE BLADES)	1.24
EXTERIOR/INTERIOR BALLISTICS (MODELS)	1.28
CORROSION/EROSION RESISTANT COATINGS	1.30
PLATFORM STABILIZATION	1.30
ADVANCED AIRFOIL AND THREE-DIMENSIONAL WING DESIGN	1.34
DEEP DRAWN, THIN WALLED METAL PARTS DESIGN	1.47
SPECIALIZED SPACE ANTENNAS	1.49
HIGH DYNAMIC RANGE RECEIVERS	1.60
HIGH VACUUM PROCESSES	1.72
NUMERICAL CONTROL OF MACHINE TOOLS	1.90
INSPECTION OF ADVANCED COMPOSITE STRUCTURES	1.99
HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM	2.02
PENETRATION AIDS TECHNOLOGY	2.05
SOLID PROPELLANTS	2.23
MEMORY TECHNOLOGIES (BUBBLE, HI-DENSITY CORES, ETC)	2.25
COMPUTER-AIDED DESIGN	2.27
ULTRAHIGH CARBON STEELS (SUPERPLASTICITY)	2.62
PLASMA SPRAY TECHNOLOGY	3.14
SOLID STATE TRANSMITTERS/FREQUENCY AMPLIFIERS	3.22
SOLID STATE MICROWAVE TECHNOLOGY	3.23
VERY HIGH SPEED INTEGRATED CIRCUITS	3.37
SOLID STATE ELECTRO-OPTICAL DETECTORS	3.53
VERY LARGE SCALE INTEGRATED CIRCUITS	3.66
NON-DESTRUCTIVE EVALUATION TECHNOLOGY	4.02
INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT	4.05
PROPULSION CONTROLS, MATERIALS AND SYSTEMS	4.66
COMPOSITE TECHNOLOGIES (WINDINGS, BONDINGS, ETC.)	4.75
HIGH PERFORMANCE A/D CONVERTERS	5.86
METAL MATRIX COMPOSITES (CARBON-CARBON, ORGANIC)	8.06

Table 3-5 (Con't.)
COMBINED RESULTS

Each technology should be clearly defined in terms of when it will become available (if it is not already being applied to the production of weapon systems), precisely what it is, and where and how it would be applied.

3.4 The Tactical Air Warfare Results

The process of obtaining assessments for the Tactical Air and the Theater Nuclear models was different from that for the ICBM model. First, the weights were not elicited from an intelligence specialist in an attempt to capture areas of Soviet weaknesses. Based upon our experience with the ICBM model and our discussions with missile, airframe, engines, and nuclear weapons personnel, it was concluded that, in general, those technologies considered important to U.S. weapons programs should also be considered important to Soviet weapons programs. In other words, it was concluded that the difference in "red and blue" weights would be insignificant. As a consequence, the weights in these two models reflect the views of the U.S. research and development community rather than the intelligence community.

The second change made after completion of the ICBM analysis was to prune the hierarchical structure used in the computer versions of the Tactical Air and Theater Nuclear models. For example, the structure for Tactical Air as shown in Figure 2-2 had 72 end nodes against which each of the 102 technologies had to be scored. The "pruned" version (Appendix B printout) has 22. This reduced the required number of assessments by one-third and was much less burdensome for the research and development personnel involved. To maintain the quality of their inputs, the technical specialists were asked to keep the 72-node models before them (and in mind) to ensure that they were considering all of the sub-elements of the problem when they made the higher order assessments required by the 22-node model.

Fifty technologies from the list of 102 were considered applicable to the Tactical Air Warfare problem. As in the ICBM case, an average technology would receive a value of 02. One such average technology is "inertial navigation systems/inertial measurement units." The highest on the list is "high performance A/D converters" valued at slightly more than 08. Lowest on the list was "high energy storage," "optical fiber cables, assemblies, guides," and "advanced forging technology." As in the ICBM case, these received low values partly because so little was known about them and their potential application to the development or improvement of weapons systems.

3.5 Theater Nuclear Results

The structure for the Theater Nuclear problem is identical to the Tactical Air structure except for the addition of those nodes pertaining to nuclear weapons. These nodes (Figure 2-3) are all under node number 1.3, titled "Weapons." Not included in the model are land- and sea-based theater delivery systems. If it is decided to continue this evaluation using this type of analysis, the additional platforms should be added.

Seventy-five technologies were considered applicable to the Theater Nuclear problem. A technology that received an average score was "wide-band, low noise receivers" at 1.34; "high performance A/D converters" received the highest score. The complete list of 102 technologies included "isotope separation," "oralloy production," "plutonium extraction," "tritium recovery," and "warhead models." Due to the fact that these nuclear-weapons-related technologies were not evaluated as individual technologies but were included in "weaponization" (1.58) and "special nuclear materials" (.68), they received a zero score (see Table 3-5).

3.6 Combined Results

When the results of the ICBM and the Theater Nuclear models are combined, it is possible to examine the relative importance of different technologies to the development of land-based intercontinental ballistic missiles, tactical aircraft systems, and nuclear weapons. Of the 102 technologies, 16 received a zero score. The first technology on the list (Table 3-5), "electrostream hole drilling" was not well understood by the personnel providing the assessments. This also applies to others on the list such as "vapor deposition" and "optical thin film materials." The other technologies that received a zero score were either duplicated by another one on the list (e.g., "large memory design" was duplicated by "memory technologies" and "computer disc systems" was duplicated by "I/O technology") or were found to be a subset of another one on the list. Much of the overlap was not apparent until the analysis was well underway, and this underscores the importance of developing a clearly defined set of technologies of equal specificity.

Based upon our discussion with the technical personnel who provided the quantitative input for the three models, along with the underlying rationale justifying their assessments, there is nothing counter-intuitive concerning the high scores computed for the most-critical technologies displayed in Table 3-5. Except for the distortions caused by duplication, differences in grain size, and lack of definition, one should find it much easier to justify export restrictions for those technologies receiving a high score than for those receiving a low score. In fact, the printout (Appendices A-C) provides the organization and traceability needed by the decision makers; they can see exactly where and to what extent the technology would be of value.

Following is an example of how the computer models should be used by the Mission Technology Correlation Task Force (MTCTF). Suppose that an opinion is sought concerning the feasibility of placing export restrictions on one of the technologies. If the technology was "higher performance A/D converters," it could be noted that it was one of the most critical technologies, based upon a wide range of 102 different technologies. It could then be shown (by referring to Appendices A, B, and C, column 062) that this particular technology, if made available to a foreign nation, could be of value in the following areas of weapons development: ICBMs - guidance and control systems; and Tactical Air - radar, passive electronic and electro-optic guidance systems, and airborne early warning, navigation, surveillance, and communications systems.

4.0 CONCLUSIONS AND RECOMMENDATIONS

This analysis has demonstrated the feasibility and value of using multi-attribute utility analysis for evaluating the potential impact of technology in three mission areas. The hierarchical structure organizes and aggregates the multiple impacts of a large number of technologies. The analysis is easy to understand and can be modified as necessary to perform sensitivity analysis in order to gain additional insights. In addition, an audit trail is provided which links the overall impact of each technology to its many impacts within each mission area. The result of the analysis is a ranking of technologies in order of their potential for improving Soviet military capabilities. The ranking of technologies resulting from the analysis provides a valuable input into decisions on export restrictions. As in any analysis of this type, judgments must be applied to the results before reaching a final conclusion.

As described in the report, only three mission areas were addressed, and selected additional missions such as sea-based strategic attack should be included. In addition, the list of technologies includes some duplication, large differences in grain size, and lack of definition. Given a well-defined list of technologies, the overall quality of the analysis could be significantly improved. The group of experts who assigned the values to the technologies did not develop the list of technologies and in some cases were asked to evaluate technologies about which they did not have expert knowledge. In general, these unfamiliar technologies ranked very low. Despite these limitations, the ranking of technologies is a good initial cut and can be used to the extent that technologies ranking high should not be exported and technologies ranking low should be carefully evaluated prior to an export decision.

If this approach is to be extended to other mission areas or lists of technologies, the lessons from this analysis should be applied. First, more effort should be allocated to developing and defining the list of technologies. The current list used for this analysis was developed for evaluating technologies both for future U.S. research and development and for potential exportation to the Soviet Union. Separate lists of technologies should be developed for these two evaluations. Technologies for U.S. research and development tend to be at a conceptual or testing stage whereas technologies to be exported are more fully developed and would normally consist of a finished product or processing/manufacturing technique, or the complete transfer of a combination of technology, processing/manufacturing technique, and product. In addition, evaluation of technologies for exportation must also consider availability from non-Soviet countries and the possibility of back-engineering the technology from finished products.

A useful approach for developing these lists of technologies would be to use a hierarchical structure. Such an organized approach would minimize duplication, encourage completeness, and reduce large differences in grain size. In addition, the impact of aggregate technologies could be calculated by summing the impacts of the component technologies.

Another recommendation resulting from this analysis relates to the elicitation of the value judgments. Ideally, U.S. research and engineering specialists would meet with intelligence experts to discuss both the capability and potential of each technology and the value of this capability to the Soviets. Assessment of the impact of a technology requires knowledge of both current Soviet capabilities and potentially increased Soviet capabilities given access to the U.S. technology. If these two groups of experts cannot

confer together, then the technologies should be evaluated by both groups and significant differences resolved either by meeting for a short period or by exchanging rationale for each group's judgments.

A major criticism of the approach is that it can be very time-consuming. The initial Tactical Air structure had 72 end nodes against which each of 102 technologies were evaluated. The large number of nodes resulted from decomposing each mission area into very specific subfactors which the experts considered important. These specific subfactors are important for ensuring that all aspects of the problem are included in the evaluation and for making the link between mission areas and technologies more visible. However, during this analysis, it was demonstrated that experts can provide the necessary judgments by simply reviewing a large, detailed structure and then evaluating the technologies on a smaller number of more aggregate factors. This approach (which was used in the Theater Nuclear case) reduced the burden on the personnel providing the assessments but still provided the audit trail from the technologies to specific subfactors in each mission area.

APPENDIX A
ICBM STRUCTURE AND DATA

NODE

WEIGHT

SYSTEM SCORES

001 002 003 006 008 009 010 011

NODE	WEIGHT	001	002	003	006	008	009	010	011
1 - L BSD ICBM (WT: 100)									
1.1 - TESTING (WT: 5)									
1.1.1 - LANCH AREA (WT: 38)									
1.1.1.1 - INSMNTATN (WT: 77)		0	0	0	0	0	0	0	0
1.1.1.2 - SILO-HRDNS (WT: 23)		0	0	0	0	0	0	0	0
1.1.2 - INST-IMPCT (WT: 5)		0	0	0	0	0	0	0	0
1.1.3 - NUCLR EFCT (WT: 57)		0	0	0	0	0	0	0	0
1.2 - BASING (WT: 2)									
1.2.1 - SECURITY (WT: 59)		0	0	0	0	0	0	0	0
1.2.2 - VULNRABLY (WT: 41)		0	0	0	0	0	0	0	0
1.2.3 - RELD CPLY (WT: 0)		0	0	0	0	0	0	0	0
1.3 - TEL (WT: 1)									
1.3.1 - ENVMT CNTL (WT: 0)		0	0	0	0	0	0	0	0
1.3.2 - MOTIVE PWR (WT: 0)		0	0	0	0	0	0	0	0
1.3.3 - DRIVE TRNS (WT: 0)		0	0	0	0	0	0	0	0
1.3.4 - ELCTL PWR (WT: 44)		0	0	0	0	0	0	0	0
1.3.5 - ACTUATORS (WT: 0)		0	0	0	0	0	0	0	0
1.3.6 - STRUCTURE (WT: 11)		0	0	0	0	0	0	0	0
1.3.7 - COMND/CNTL (WT: 44)		0	0	0	0	0	0	0	0
1.4 - ENGINES (WT: 20)									
1.4.1 - MOTOR CSFS (WT: 32)									
1.4.1.1 - MNFCT/DSGN (WT: 83)	15	0	50	0	0	0	10	0	0
1.4.1.2 - ANALYSIS (WT: 8)	0	0	10	0	0	0	0	0	0
1.4.1.3 - TEST (WT: 8)	0	0	0	0	0	60	0	0	0
1.4.2 - NOZZLES (WT: 16)									
1.4.2.1 - EXIT CONE (WT: 35)	0	0	45	0	15	5	0	0	0
1.4.2.2 - THROATS (WT: 50)	0	0	5	0	10	10	0	0	0
1.4.2.3 - ATTCH-CASE (WT: 15)	0	0	0	0	100	0	0	0	0
1.4.3 - FUMES (WT: 0)									
1.4.3.1 - CASES (WT: 22)	0	0	0	0	0	0	0	0	0
1.4.3.2 - GEARS (WT: 22)	0	0	0	0	0	0	0	0	0
1.4.3.3 - TURBINES (WT: 22)	0	0	0	0	0	0	0	0	0
1.4.3.4 - IMPELLERS (WT: 22)	0	0	0	0	0	0	0	0	0
1.4.3.5 - BEARINGS (WT: 11)	0	0	0	0	0	0	0	0	0
1.4.4 - THRST VCTE (WT: 19)									
1.4.4.1 - ACTUATORS (WT: 33)	0	0	0	0	0	0	0	0	0
1.4.4.2 - LIO OF GAS (WT: 33)	0	0	0	0	0	0	0	0	0
1.4.4.3 - CONTROLS (WT: 33)	0	0	0	0	0	0	0	0	0
1.4.5 - CHAMBER (WT: 0)									
1.4.5.1 - CASES (WT: 100)	0	0	0	0	0	0	0	0	0
1.4.5.2 - COOLING (WT: 0)	0	0	0	0	0	0	0	0	0
1.4.5.3 - INJECTOR (WT: 0)	0	0	0	0	0	0	0	0	0
1.4.6 - PROPELLANT (WT: 32)									
1.4.6.1 - GRAIN DSGN (WT: 29)	0	0	0	0	0	0	0	0	0
1.4.6.2 - ANALYSIS (WT: 3)	0	0	0	0	0	0	0	0	0
1.4.6.3 - COMPOSTIN (WT: 11)	0	0	0	0	0	0	0	0	0
1.4.6.4 - CSTNG CRNG (WT: 29)	0	0	0	0	0	0	0	0	0
1.4.6.5 - THRST TERM (WT: 29)	0	0	0	0	0	0	0	0	0
1.5 - MSL STRUCT (WT: 1)									
1.5.1 - DESIGN (WT: 30)	0	0	25	0	0	10	0	0	0
1.5.2 - MANUFACTING (WT: 70)	0	0	5	0	0	20	45	0	0
1.6 - GDNCE, CNTL (WT: 26)									
1.6.1 - INERTIAL (WT: 61)									
1.6.1.1 - INSTMT-TM (WT: 0)	0	0	0	0	0	0	0	0	0
1.6.1.2 - GYROS (WT: 36)	0	5	0	0	0	0	0	15	0
1.6.1.3 - ACCLERMTRS (WT: 27)	0	0	0	0	0	0	0	0	0
1.6.1.4 - CONTROL (WT: 36)									
1.6.1.4.1 - COMPUTERS (WT: 88)									
1.6.1.4.1.1 - MEMRY CORE (WT: 50)	0	0	0	0	0	0	0	0	0
1.6.1.4.1.2 - INTEG CRCT (WT: 45)	0	0	0	0	0	0	0	0	0
1.6.1.4.1.3 - PACKAGING (WT: 5)	0	0	0	0	10	0	0	0	0
1.6.1.4.2 - SOFTWARE (WT: 9)	0	0	0	0	0	0	0	0	0
1.6.1.4.3 - ALGORITHMS (WT: 0)	0	0	0	0	0	0	0	0	0
1.6.1.4.4 - GEODET/PHY (WT: 3)	0	0	0	0	0	0	0	0	0
1.6.1.5 - CASES (WT: 0)	90	0	0	0	0	0	0	0	0
1.6.2 - STELLAR (WT: 9)	0	0	0	0	0	0	0	0	0
1.6.3 - TRMNL HMNG (WT: 30)	0	0	0	0	0	0	0	0	0
1.7 - RENTRY VCL (WT: 45)									
1.7.1 - PEN AID (WT: 9)	0	0	0	0	0	0	0	0	0
1.7.2 - ROME (WT: 5)	0	0	0	0	0	0	0	0	0
1.7.3 - HEAT SHLD (WT: 36)	0	0	0	10	10	10	0	0	0
1.7.4 - STRUCTURE (WT: 4)	0	0	0	0	100	0	0	0	0
1.7.5 - NOSE-TIF (WT: 36)	0	0	0	10	10	10	0	0	0
1.7.6 - ARMNG, FZNG (WT: 9)	0	0	0	0	0	0	0	0	0

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1 - L RSD ICRM

FACTOR	WT	001	002	003	006	008	009	010	011
1) TESTING (5)		.00	.00	.00	.00	.00	.00	.00	.00
2) BASING (2)		.00	.00	.00	.00	.00	.00	.00	.00
3) TEL (1)		.00	.00	.00	.00	.00	.00	.00	.00
4) ENGINES (20)	4.04	.00	.00	16.69	.00	4.08	2.71	2.69	.00
5) MSL STRUCT (1)	.00	.00	.00	11.00	.00	.00	17.00	31.50	.00
6) GDNCE,CNTL (26)	.00	1.11	.00	.00	.10	.00	.00	.00	3.33
7) RENTRY VCL (45)	.00	.00	.00	7.27	11.31	7.27	.00	.00	.00
TOTAL	.81	.29	3.45	3.27	5.93	3.98	.85	.87	

1.1 - L RSD ICRM - TESTING

FACTOR	WT	001	002	003	006	008	009	010	011
1) LANCH AREA (38)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) INST-IMPCT *(5)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) NUCLE EFCT *(57)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00

1.1.1 - L RSD ICRM - TESTING - LANCH AREA

FACTOR	WT	001	002	003	006	008	009	010	011
1) INSMNTATN *(77)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) SILO-HRDNS *(23)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00

1.2 - L RSD ICRM - BASING

FACTOR	WT	001	002	003	006	008	009	010	011
1) SECURITY *(59)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) VULNERABILITY *(41)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) RELO CPLY *(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00

1.3 - L RSD ICRM - TEL

FACTOR	WT	001	002	003	006	008	009	010	011
1) ENVMT CNTL *(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) MOTIVE FWR *(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) DRIVE TRNS *(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) ELCTL FWR *(44)	.00	.00	.00	.00	.00	.00	.00	.00	.00
5) ACTUATORS *(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
6) STRUCTURE *(11)	.00	.00	.00	.00	.00	.00	.00	.00	.00
7) COMND/CNTL *(44)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00

1.4 - L RSD ICRM - ENGINES

FACTOR	WT	001	002	003	006	008	009	010	011
1) MOTOR CSES (32)	12.50	.00	42.50	.00	.00	5.00	8.33	.00	.00
2) NOZZLES (16)	.00	.00	18.25	.00	25.25	6.75	.00	.00	.00
3) PUMPS (0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) THRST VCTR (19)	.00	.00	.00	.00	.00	.00	.00	.00	.00
5) CHAMBER (0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
6) PROPELLANT (32)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	4.04	.00	16.69	.00	4.08	2.71	2.69	.00	.00

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1.4.1 - L BSD ICBM - ENGINES			- MOTOR CASES						
FACTOR	WT	001	002	003	006	008	009	010	011
1) MNFCT/DSGN	*(83)	15.00	.00	50.00	.00	.00	.00	10.00	.00
2) ANALYSIS	*(8)	.00	.00	10.00	.00	.00	.00	.00	.00
3) TEST	*(8)	.00	.00	.00	.00	.00	60.00	.00	.00
TOTAL		12.50	.00	42.50	.00	.00	5.00	8.33	.00

1.4.2 - L BSD ICBM - ENGINES			- NOZZLES						
FACTOR	WT	001	002	003	006	008	009	010	011
1) EXIT CONE	*(35)	.00	.00	45.00	.00	15.00	5.00	.00	.00
2) THROATS	*(50)	.00	.00	5.00	.00	10.00	10.00	.00	.00
3) ATTCH-CASE	*(15)	.00	.00	.00	.00	100.00	.00	.00	.00
TOTAL		.00	.00	18.25	.00	25.25	6.75	.00	.00

1.4.3 - L BSD ICBM - ENGINES			- PUMPS						
FACTOR	WT	001	002	003	006	008	009	010	011
1) CASES	*(22)	.00	.00	.00	.00	.00	.00	.00	.00
2) GEARS	*(22)	.00	.00	.00	.00	.00	.00	.00	.00
3) TURBINES	*(22)	.00	.00	.00	.00	.00	.00	.00	.00
4) IMPELLERS	*(22)	.00	.00	.00	.00	.00	.00	.00	.00
5) BEARINGS	*(11)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.4.4 - L BSD ICBM - ENGINES			- THRST VCTR						
FACTOR	WT	001	002	003	006	008	009	010	011
1) ACTUATORS	*(33)	.00	.00	.00	.00	.00	.00	.00	.00
2) LIQ OR GAS	*(33)	.00	.00	.00	.00	.00	.00	.00	.00
3) CONTROLS	*(33)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.4.5 - L BSD ICBM - ENGINES			- CHAMFER						
FACTOR	WT	001	002	003	006	008	009	010	011
1) CASES	*(100)	.00	.00	.00	.00	.00	.00	.00	.00
2) COOLING	*(0)	.00	.00	.00	.00	.00	.00	.00	.00
3) INJECTOR	*(0)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.4.6 - L BSD ICBM - ENGINES			- PROPELLANT						
FACTOR	WT	001	002	003	006	008	009	010	011
1) GRAIN DSGN	*(29)	.00	.00	.00	.00	.00	.00	.00	.00
2) ANALYSIS	*(3)	.00	.00	.00	.00	.00	.00	.00	.00
3) COMPOSTIN	*(11)	.00	.00	.00	.00	.00	.00	.00	.00
4) CSTNG CRNG	*(29)	.00	.00	.00	.00	.00	.00	.00	.00
5) THRST TERM	*(29)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.5 - L BSD ICBM - MSL STRUCT									
FACTOR	WT	001	002	003	006	008	009	010	011
1) DESIGN	*(30)	.00	.00	25.00	.00	.00	10.00	.00	.00
2) MANUFACTING	*(70)	.00	.00	5.00	.00	.00	20.00	45.00	.00
TOTAL		.00	.00	11.00	.00	.00	17.00	31.50	.00

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1.6 - L RSD ICBM - GDNCE, CNTL		001	002	003	006	008	009	010	011
FACTOR	WT								
1) INERTIAL	(61)	.00	1.82	.00	.00	.16	.00	.00	5.45
2) STELLAR	*(9)	.00	.00	.00	.00	.00	.00	.00	.00
3) TRMNL HMNG	*(30)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	1.11	.00	.00	.10	.00	.00	3.33

1.6.1 - L RSD ICBM - GDNCE, CNTL - INERTIAL		001	002	003	006	008	009	010	011
FACTOR	WT								
1) INSTMT-TM	*(0)	.00	.00	.00	.00	.00	.00	.00	.00
2) GYROS	*(36)	.00	5.00	.00	.00	.00	.00	.00	15.00
3) ACCELERMTRS	*(27)	.00	.00	.00	.00	.00	.00	.00	.00
4) CONTROL	(36)	.00	.00	.00	.00	.44	.00	.00	.00
5) EACES	*(0)	90.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	1.00	.00	.00	.44	.00	.00	15.00

1.6.1.4 - L RSD ICBM - GDNCE, CNTL - INERTIAL - CONTROL		001	002	003	006	008	009	010	011
FACTOR	WT								
1) COMPTERS	(88)	.00	.00	.00	.00	.00	.00	.00	.00
2) SOFTWARE	*(9)	.00	.00	.00	.00	.00	.00	.00	.00
3) ALGORITHM	*(3)	.00	.00	.00	.00	.00	.00	.00	.00
4) GEODETIC	*(3)	.00	.00	.00	.00	.11	.00	.00	.00
TOTAL		.00	.00	.00	.00	.11	.00	.00	.00

1.6.1.4.1 - GDNCE, CNTL - INERTIAL - CONTROL - COMPTERS		001	002	003	006	008	009	010	011
FACTOR	WT								
1) MEMRY CORE	*(50)	.00	.00	.00	.00	.00	.00	.00	.00
2) INTEG. CRT	*(4)	.00	.00	.00	.00	.00	.00	.00	.00
3) DATA ACQ	*(5)	.00	.00	.00	.00	10.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	10.00	.00	.00	.00

1.6.2 - L RSD ICBM - BENTLEY, VIL		001	002	003	006	008	009	010	011
FACTOR	WT								
1) PEN AID	*(9)	.00	.00	.00	.00	.00	.00	.00	.00
2) BOMH	*(5)	.00	.00	.00	.00	.00	.00	.00	.00
3) HEAT SHLD	*(36)	.00	.00	.00	10.00	10.00	10.00	.00	.00
4) STRUCTURE	*(4)	.00	.00	.00	.00	.00	10.00	.00	.00
5) NOSE-TIE	*(36)	.00	.00	.00	10.00	10.00	10.00	.00	.00
6) ARMING, FZNG	*(9)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	7.07	11.00	7.07	.00	.00

MODE

WEIGHT

SYSTEM SCORES

014 015 016 017 018 020 021 024

1	- L BSD ICRN (WT 100)							
1.1	- TESTING (WT 5)							
1.1.1	- LANCH AREA (WT 38)							
1.1.1.1	- INSMNTATN (WT 77)	0	0	0	0	0	0	19
1.1.1.2	- SILO-HRDNS (WT 23)	0	0	0	0	0	0	0
1.1.2	- INST-IMPCT (WT 5)	0	0	0	0	0	0	50
1.1.3	- NUCLR EFCT (WT 57)	0	0	0	0	0	0	0
1.2	- BASING (WT 2)							
1.2.1	- SECURITY (WT 59)	0	0	0	0	0	0	0
1.2.2	- VULNRABLY (WT 41)	0	0	0	0	0	15	0
1.2.3	- RELD CPBLY (WT 0)	0	0	0	0	0	0	0
1.3	- TEL (WT 1)							
1.3.1	- ENVMT CNTL (WT 0)	0	0	0	0	0	0	0
1.3.2	- MOTIVE PWR (WT 0)	0	0	0	0	0	0	0
1.3.3	- DRIVE TRNS (WT 0)	0	0	0	0	0	0	0
1.3.4	- ELCTL PWR (WT 44)	0	0	0	0	0	10	15
1.3.5	- ACTUATORS (WT 0)	0	0	0	0	0	0	0
1.3.6	- STRUCTURE (WT 11)	0	0	100	0	0	0	0
1.3.7	- COMND/CNTL (WT 44)	0	0	0	0	0	0	25
1.4	- ENGINES (WT 20)							
1.4.1	- MOTOR GSES (WT 32)							
1.4.1.1	- MNFCT/DSGN (WT 83)	0	0	0	0	0	5	0
1.4.1.2	- ANALYSIS (WT 8)	5	5	5	0	0	0	0
1.4.1.3	- TEST (WT 8)	0	0	0	0	0	0	0
1.4.2	- NOZZLES (WT 16)							
1.4.2.1	- EXIT CONE (WT 35)	0	0	15	10	5	0	0
1.4.2.2	- THR-DATS (WT 50)	0	0	0	10	60	0	0
1.4.2.3	- ATTCH-CASE (WT 15)	0	0	0	0	0	0	0
1.4.3	- PUMPS (WT 0)							
1.4.3.1	- CASES (WT 22)	0	0	100	0	0	0	0
1.4.3.2	- GEARS (WT 22)	0	0	50	0	0	0	0
1.4.3.3	- TURBINES (WT 22)	0	0	50	0	0	0	0
1.4.3.4	- IMPELLERS (WT 22)	0	0	50	0	0	0	0
1.4.3.5	- BEARINGS (WT 11)	0	0	100	0	0	0	0
1.4.4	- THRST VCTH (WT 19)							
1.4.4.1	- ACTUATORS (WT 33)	0	0	40	0	0	0	0
1.4.4.2	- LIO OR GAS (WT 33)	0	0	10	0	0	0	0
1.4.4.3	- CONTROLS (WT 33)	0	0	10	0	0	0	0
1.4.5	- CHAMFER (WT 0)							
1.4.5.1	- CASES (WT 100)	0	0	0	50	0	0	0
1.4.5.2	- COOLING (WT 0)	0	0	0	0	0	0	0
1.4.5.3	- INJECTOR (WT 0)	0	0	0	0	0	0	0
1.4.6	- PROPELLANT (WT 32)							
1.4.6.1	- GRAIN DSGN (WT 29)	0	0	0	0	0	0	0
1.4.6.2	- ANALYSIS (WT 3)	0	0	0	0	0	0	0
1.4.6.3	- COMFORTIN (WT 11)	0	0	0	0	0	0	0
1.4.6.4	- CSING CRNG (WT 29)	0	0	0	0	0	0	0
1.4.6.5	- THRST TERM (WT 29)	0	0	0	0	0	0	0
1.5	- MSI STRUCT (WT 1)							
1.5.1	- DESIGN (WT 30)	0	0	10	0	25	0	0
1.5.2	- MANUFACT (WT 70)	0	5	0	0	25	0	0
1.6	- GDNCE/CNTL (WT 26)							
1.6.1	- INERTIAL (WT 61)							
1.6.1.1	- INSTMT-TM (WT 0)	0	0	0	0	0	0	0
1.6.1.2	- GYRO (WT 36)	0	0	0	0	0	0	0
1.6.1.3	- ACCLERMTRS (WT 27)	0	0	0	0	0	0	0
1.6.1.4	- CONTROL (WT 36)							
1.6.1.4.1	- COMPUTERS (WT 88)							
1.6.1.4.1.1	- MEMRY CORE (WT 50)	0	0	0	0	0	0	0
1.6.1.4.1.2	- INTEG CRCT (WT 45)	0	0	0	0	0	0	0
1.6.1.4.1.3	- PACKAGING (WT 5)	0	0	0	0	0	0	0
1.6.1.4.2	- SOFTWARE (WT 9)	0	0	0	0	0	0	0
1.6.1.4.3	- ALGORITHMS (WT 0)	0	0	0	0	0	0	0
1.6.1.4.4	- GEODET/PHY (WT 3)	0	0	0	0	0	0	0
1.6.1.5	- CASES (WT 0)	0	0	0	0	0	0	0
1.6.2	- STELLAR (WT 9)	0	0	0	0	0	0	0
1.6.3	- TRMNL HMNG (WT 30)	0	0	0	0	0	0	0
1.7	- RENTRY VCL (WT 45)							
1.7.1	- PEN AID (WT 9)	0	0	0	0	0	0	0
1.7.2	- BOMB (WT 5)	0	0	0	0	5	0	0
1.7.3	- HEAT SHLD (WT 36)	0	10	0	10	50	0	0
1.7.4	- STRUCTURE (WT 4)	0	0	0	0	0	0	0
1.7.5	- NOSE-TIP (WT 36)	0	0	0	0	40	0	0
1.7.6	- ARMNG,FZNG (WT 9)	0	0	0	0	0	0	20

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1 - L RSD ICRM		WT	014	015	016	017	018	020	021	024
FACTOR		WT	014	015	016	017	018	020	021	024
1) TESTING	(5)	.00	.00	.00	.00	.00	.00	.00	.00	7.95
2) BASING	(2)	.00	.00	.00	.00	.00	.00	.00	6.18	.00
3) TEL	(1)	.00	.00	11.11	.00	.00	.00	.00	4.44	17.78
4) ENGINES	(20)	.13	.13	4.82	1.37	5.13	1.35	.00	.00	.00
5) MSL STRUCT	(1)	.00	3.50	3.00	.00	25.00	.00	.00	.00	.00
6) GDNCF, CNL	(26)	.00	.00	.00	.00	.00	.00	.00	.00	.00
7) RENTRY VCL	(45)	.00	3.64	.00	3.64	32.98	.00	.00	.00	1.87
TOTAL			.03	1.70	1.11	1.91	16.12	.27	.17	1.39

1.1 - L RSD ICRM - TESTING		WT	014	015	016	017	018	020	021	024
FACTOR		WT	014	015	016	017	018	020	021	024
1) LANCH AREA	(38)	.00	.00	.00	.00	.00	.00	.00	.00	14.62
2) INST-IMPCT *	(5)	.00	.00	.00	.00	.00	.00	.00	.00	50.00
3) NUCLR PECT *	(57)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL			.00	.00	.00	.00	.00	.00	.00	7.95

1.1.1 - L RSD ICRM - TESTING - LANCH AREA		WT	014	015	016	017	018	020	021	024
FACTOR		WT	014	015	016	017	018	020	021	024
1) INTMNTAIN *	(77)	.00	.00	.00	.00	.00	.00	.00	.00	19.00
2) SJLO-HEDNG *	(23)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL			.00	.00	.00	.00	.00	.00	.00	14.62

1.2 - L RSD ICRM - BASING		WT	014	015	016	017	018	020	021	024
FACTOR		WT	014	015	016	017	018	020	021	024
1) SECURITY *	(59)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) VULNERABILITY *	(41)	.00	.00	.00	.00	.00	.00	.00	15.00	.00
3) FELD CEBLY *	(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL			.00	.00	.00	.00	.00	.00	6.18	.00

1.3 - L RSD ICRM - TEL		WT	014	015	016	017	018	020	021	024
FACTOR		WT	014	015	016	017	018	020	021	024
1) ENVMT CNL *	(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) MOTIVE FWR *	(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) DRIVE TRNC *	(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) ELCTL FWR *	(44)	.00	.00	.00	.00	.00	.00	.00	10.00	15.00
5) ACTUATORS *	(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
6) STRUCTURE *	(11)	.00	.00	100.00	.00	.00	.00	.00	.00	.00
7) COMND/CNL *	(44)	.00	.00	.00	.00	.00	.00	.00	.00	25.00
TOTAL			.00	.00	11.11	.00	.00	.00	4.44	17.78

1.4 - L RSD ICRM - ENGINES		WT	014	015	016	017	018	020	021	024
FACTOR		WT	014	015	016	017	018	020	021	024
1) MOTOR CASES	(32)	.42	.42	.42	.00	.00	.00	4.17	.00	.00
2) NOZZLES	(16)	.00	.00	5.25	8.50	31.75	.00	.00	.00	.00
3) PUMPS	(0)	.00	.00	66.67	.00	.00	.00	.00	.00	.00
4) THRST VCTR	(19)	.00	.00	20.00	.00	.00	.00	.00	.00	.00
5) CHAMBER	(0)	.00	.00	.00	50.00	.00	.00	.00	.00	.00
6) PROPELLANT	(32)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL			.13	.13	4.82	1.37	5.13	1.35	.00	.00

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1.4.1 - L BSD ICRM - ENGINES		- MOTOR CSES							
FACTOR	WT	014	015	016	017	018	020	021	024
1) MNECT/DSGN	*(83)	.00	.00	.00	.00	.00	5.00	.00	.00
2) ANALYSIS	*(8)	5.00	5.00	5.00	.00	.00	.00	.00	.00
3) TEST	*(8)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.42	.42	.42	.00	.00	4.17	.00	.00

1.4.2 - L BSD ICRM - ENGINES		- NOZZLES							
FACTOR	WT	014	015	016	017	018	020	021	024
1) EXIT CONE	*(35)	.00	.00	15.00	10.00	5.00	.00	.00	.00
2) THRUST	*(50)	.00	.00	.00	10.00	60.00	.00	.00	.00
3) ATTCH CASE	*(15)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	5.25	8.50	31.75	.00	.00	.00

1.4.3 - L BSD ICRM - ENGINES		- PUMPS							
FACTOR	WT	014	015	016	017	018	020	021	024
1) CASE	*(22)	.00	.00	100.00	.00	.00	.00	.00	.00
2) GEAR	*(22)	.00	.00	50.00	.00	.00	.00	.00	.00
3) TURBINE	*(22)	.00	.00	50.00	.00	.00	.00	.00	.00
4) IMPELLER	*(22)	.00	.00	50.00	.00	.00	.00	.00	.00
5) BEARING	*(11)	.00	.00	100.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	66.67	.00	.00	.00	.00	.00

1.4.4 - L BSD ICRM - ENGINES		- THRST VCTR							
FACTOR	WT	014	015	016	017	018	020	021	024
1) ACTUATOR	*(33)	.00	.00	40.00	.00	.00	.00	.00	.00
2) LIF DR GAS	*(33)	.00	.00	10.00	.00	.00	.00	.00	.00
3) CONTROL	*(33)	.00	.00	10.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	20.00	.00	.00	.00	.00	.00

1.4.5 - L BSD ICRM - ENGINES		- CHAMBER							
FACTOR	WT	014	015	016	017	018	020	021	024
1) CASE	*(100)	.00	.00	.00	50.00	.00	.00	.00	.00
2) COOLING	*(0)	.00	.00	.00	.00	.00	.00	.00	.00
3) INJECTOR	*(0)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	50.00	.00	.00	.00	.00

1.4.6 - L BSD ICRM - ENGINES		- PROPELLANT							
FACTOR	WT	014	015	016	017	018	020	021	024
1) GRAIN DSGN	*(29)	.00	.00	.00	.00	.00	.00	.00	.00
2) ANALYSIS	*(3)	.00	.00	.00	.00	.00	.00	.00	.00
3) COMPOSTIN	*(11)	.00	.00	.00	.00	.00	.00	.00	.00
4) COSTNG CRNG	*(29)	.00	.00	.00	.00	.00	.00	.00	.00
5) THRST TERM	*(29)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.5 - L BSD ICRM - MSL STRUCT									
FACTOR	WT	014	015	016	017	018	020	021	024
1) DESIGN	*(30)	.00	.00	10.00	.00	25.00	.00	.00	.00
2) MANUFACTING	*(70)	.00	5.00	.00	.00	25.00	.00	.00	.00
TOTAL		.00	3.50	3.00	.00	25.00	.00	.00	.00

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1.6 - L BSD ICRM - GDNCE,CNTL

FACTOR	WT	014	015	016	017	018	020	021	024
1) INERTIAL (61)		.00	.00	.00	.00	.00	.00	.00	.00
2) STELLAR *(9)		.00	.00	.00	.00	.00	.00	.00	.00
3) TRMNL HMNG *(30)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.6.1 - L BSD ICRM - GDNCE,CNTL - INERTIAL

FACTOR	WT	014	015	016	017	018	020	021	024
1) INSTANT-TM *(0)		.00	.00	.00	.00	.00	.00	.00	.00
2) GYROS *(36)		.00	.00	.00	.00	.00	.00	.00	.00
3) ACCLERMTRS *(27)		.00	.00	.00	.00	.00	.00	.00	.00
4) CONTROL (36)		.00	.00	.00	.00	.00	.00	.00	.00
5) CASES *(0)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.6.1.4 - L BSD ICRM - GDNCE,CNTL - INERTIAL - CONTROL

FACTOR	WT	014	015	016	017	018	020	021	024
1) COMPUTERS (88)		.00	.00	.00	.00	.00	.00	.00	.00
2) SOFTWARE *(9)		.00	.00	.00	.00	.00	.00	.00	.00
3) ALGORITHMS *(0)		.00	.00	.00	.00	.00	.00	.00	.00
4) GEODET/PHY *(3)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.6.1.4.1 - GDNCE,CNTL - INERTIAL - CONTROL - COMPUTERS

FACTOR	WT	014	015	016	017	018	020	021	024
1) MEMORY CORE *(50)		.00	.00	.00	.00	.00	.00	.00	.00
2) INTEG CRCT *(45)		.00	.00	.00	.00	.00	.00	.00	.00
3) PACKAGING *(5)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.7 - L BSD ICRM - RENTRY VCL

FACTOR	WT	014	015	016	017	018	020	021	024
1) PEN AID *(9)		.00	.00	.00	.00	.00	.00	.00	.00
2) ROMK *(5)		.00	.00	.00	.00	5.00	.00	.00	.00
3) HEAT SHLD *(36)		.00	10.00	.00	10.00	50.00	.00	.00	.00
4) STRUCTURE *(4)		.00	.00	.00	.00	.00	.00	.00	.00
5) NOSE-TIF *(36)		.00	.00	.00	.00	40.00	.00	.00	.00
6) ARMNG,FZNG *(9)		.00	.00	.00	.00	.00	.00	.00	20.00
TOTAL		.00	3.64	.00	3.64	32.98	.00	.00	1.82

NODE

WEIGHT

SYSTEM SCORES

025 026 028 030 031 033 035 034

NODE	WEIGHT	025	026	028	030	031	033	035	034
1 - L BSD ICRM (WT: 100)									
1.1 - TESTING (WT: 5)									
1.1.1 - LANCH AREA (WT: 38)									
1.1.1.1 - INSMNTATN (WT: 77)		0	0	0	0	0	0	0	0
1.1.1.2 - SILO-HRDNS (WT: 23)		0	0	0	0	0	0	0	0
1.1.2 - INST-IMPCT (WT: 5)		0	0	0	0	0	0	0	0
1.1.3 - NUCLR EFCT (WT: 57)		0	29	17	0	0	0	0	0
1.2 - BASING (WT: 2)									
1.2.1 - SECURITY (WT: 59)		0	0	0	0	0	0	0	0
1.2.2 - VULNRBLTY (WT: 41)		30	0	40	0	0	0	0	0
1.2.3 - RELD CPRLY (WT: 0)		0	0	0	0	0	0	0	0
1.3 - TEL (WT: 1)									
1.3.1 - ENVMT CNTL (WT: 0)		0	0	0	0	0	0	0	0
1.3.2 - MOTIVE PWR (WT: 0)		0	0	0	0	0	0	0	0
1.3.3 - DRIVE TRNS (WT: 0)		0	0	0	0	0	0	0	0
1.3.4 - ELCITL PWR (WT: 44)		0	15	0	0	0	15	30	0
1.3.5 - ACTUATORS (WT: 0)		0	0	0	0	0	0	0	0
1.3.6 - STRUCTURE (WT: 11)		0	0	0	0	0	0	0	0
1.3.7 - COMND/CNTL (WT: 44)		0	0	50	0	0	0	0	0
1.4 - ENGINES (WT: 20)									
1.4.1 - MOTOR CSFS (WT: 32)									
1.4.1.1 - MNFCT/DSGN (WT: 83)		0	0	0	0	0	0	0	0
1.4.1.2 - ANALYSIS (WT: 8)		0	0	0	0	0	0	0	0
1.4.1.3 - TEST (WT: 8)		0	0	0	0	0	0	0	0
1.4.2 - NOZZLES (WT: 16)									
1.4.2.1 - EXIT CONE (WT: 35)		0	0	0	0	0	0	0	0
1.4.2.2 - THRUSTS (WT: 50)		0	0	0	0	0	0	0	0
1.4.2.3 - ATTCH-CASE (WT: 15)		0	0	0	0	0	0	0	0
1.4.3 - PUMPS (WT: 0)									
1.4.3.1 - CASES (WT: 22)		0	0	0	0	0	0	0	0
1.4.3.2 - GEARS (WT: 22)		50	0	0	0	0	0	0	0
1.4.3.3 - TURBINES (WT: 22)		50	0	0	0	0	0	0	0
1.4.3.4 - IMPELLERS (WT: 22)		50	0	0	0	0	0	0	0
1.4.3.5 - BEARINGS (WT: 11)		0	0	0	0	0	0	0	0
1.4.4 - THROT VOTE (WT: 19)									
1.4.4.1 - ACTUATORS (WT: 33)		0	0	0	0	0	0	0	60
1.4.4.2 - LIQ OR GAS (WT: 33)		0	0	0	0	0	0	0	90
1.4.4.3 - CONTROLS (WT: 33)		0	0	0	0	0	0	0	90
1.4.5 - CHAMBER (WT: 0)									
1.4.5.1 - CASES (WT: 100)		0	0	0	0	0	0	0	0
1.4.5.2 - COOLING (WT: 0)		0	0	0	0	0	0	0	0
1.4.5.3 - INJECTOR (WT: 0)		0	0	0	0	0	0	0	0
1.4.6 - PROPELLANT (WT: 32)									
1.4.6.1 - GRAIN DSGN (WT: 29)		0	0	0	0	0	0	0	40
1.4.6.2 - ANALYSIS (WT: 3)		0	0	0	0	0	0	0	50
1.4.6.3 - COMPOSTIN (WT: 11)		0	0	0	0	0	0	0	50
1.4.6.4 - CSING CRNG (WT: 29)		0	0	0	0	0	0	0	15
1.4.6.5 - THROT TERM (WT: 29)		0	0	0	0	0	0	0	100
1.5 - MSL STRUCT (WT: 1)									
1.5.1 - DESIGN (WT: 30)		0	0	0	0	0	0	0	0
1.5.2 - MANUFACTING (WT: 70)		0	0	0	0	0	0	0	0
1.6 - GUIDANCE, CNTL (WT: 26)									
1.6.1 - INERTIAL (WT: 61)									
1.6.1.1 - INSTMT-TM (WT: 0)		0	0	0	0	0	0	0	0
1.6.1.2 - GYRO (WT: 36)		0	0	0	0	0	0	0	0
1.6.1.3 - ACCLERMTRS (WT: 27)		0	0	0	0	0	0	0	0
1.6.1.4 - CONTROL (WT: 36)									
1.6.1.4.1 - COMPUTERS (WT: 88)									
1.6.1.4.1.1 - MEMRY CORE (WT: 50)		0	0	0	0	0	0	0	0
1.6.1.4.1.2 - INTEG CRCT (WT: 45)		0	0	0	0	0	0	0	0
1.6.1.4.1.3 - PACKAGING (WT: 5)		0	0	0	0	0	0	0	0
1.6.1.4.2 - SOFTWARE (WT: 9)		0	0	0	0	0	0	0	0
1.6.1.4.3 - ALGORITHMS (WT: 0)		0	0	0	0	0	0	0	0
1.6.1.4.4 - GEODET/PHY (WT: 3)		0	0	0	0	0	0	0	0
1.6.1.5 - CASES (WT: 0)		0	0	0	0	0	0	0	0
1.6.2 - STELLAR (WT: 9)		0	0	60	0	0	0	0	0
1.6.3 - TRMNL HMNG (WT: 30)		0	0	0	0	0	0	0	0
1.7 - REENTRY VCL (WT: 45)									
1.7.1 - PEN AID (WT: 9)		0	0	0	0	0	0	0	0
1.7.2 - BOMB (WT: 5)		0	0	5	0	0	0	0	0
1.7.3 - HEAT SHLD (WT: 36)		0	0	0	0	0	0	0	0
1.7.4 - STRUCTURE (WT: 4)		0	0	0	0	0	0	0	0
1.7.5 - NOSE-TIP (WT: 36)		0	0	0	10	10	0	0	0
1.7.6 - ARMNG, FZNG (WT: 9)		0	0	0	0	0	0	0	0

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1 - L RSD ICRM

FACTOR	WT	025	026	028	030	031	033	035	036
1) TESTING (5)		.00	16.57	9.71	.00	.00	.00	.00	.00
2) RASING (2)		12.35	.00	16.47	.00	.00	.00	.00	.00
3) TEL (1)		.00	6.67	22.22	.00	.00	6.67	13.33	.00
4) ENGINES (20)		.00	.00	.00	.00	.00	.00	.00	31.98
5) MSL STRUCT (1)		.00	.00	.00	.00	.00	.00	.00	.00
6) GDNCF, CNL (26)		.00	.00	5.40	.00	.00	.00	.00	.00
7) RENTRY VCL (.45)		.00	.00	.25	3.64	3.64	.00	.00	.00
TOTAL		.25	.90	2.55	1.64	1.64	.07	.13	6.40

1.1 - L RSD ICRM - TESTING

FACTOR	WT	025	026	028	030	031	033	035	036
1) LANCH AREA (38)		.00	.00	.00	.00	.00	.00	.00	.00
2) INCL-IMPCT *(5)		.00	.00	.00	.00	.00	.00	.00	.00
3) NUCLE EFFT *(57)		.00	29.00	17.00	.00	.00	.00	.00	.00
TOTAL		.00	16.57	9.71	.00	.00	.00	.00	.00

1.1.1 - L RSD ICRM - TESTING - LANCH AREA

FACTOR	WT	025	026	028	030	031	033	035	036
1) INCMNTATN *(77)		.00	.00	.00	.00	.00	.00	.00	.00
2) FOLD-HEDNS *(23)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.1.2 - L RSD ICRM - RASING

FACTOR	WT	025	026	028	030	031	033	035	036
1) SECURITY *(59)		.00	.00	.00	.00	.00	.00	.00	.00
2) VULNERABILITY *(41)		30.00	.00	40.00	.00	.00	.00	.00	.00
3) REID CFBLY *(0)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		12.35	.00	16.47	.00	.00	.00	.00	.00

1.1.3 - L RSD ICRM - TEL

FACTOR	WT	025	026	028	030	031	033	035	036
1) ENVMT CNL *(0)		.00	.00	.00	.00	.00	.00	.00	.00
2) MOTIVE FWR *(0)		.00	.00	.00	.00	.00	.00	.00	.00
3) DRIVE TRND *(0)		.00	.00	.00	.00	.00	.00	.00	.00
4) ELCLE FWR *(44)		.00	15.00	.00	.00	.00	15.00	30.00	.00
5) ACTUATORS *(0)		.00	.00	.00	.00	.00	.00	.00	.00
6) STRUCTURE *(11)		.00	.00	.00	.00	.00	.00	.00	.00
7) COMND/CNLT *(44)		.00	.00	50.00	.00	.00	.00	.00	.00
TOTAL		.00	6.67	22.22	.00	.00	6.67	13.33	.00

1.1.4 - L RSD ICRM - ENGINES

FACTOR	WT	025	026	028	030	031	033	035	036
1) MOTOR CASES (32)		.00	.00	.00	.00	.00	.00	.00	.00
2) NOZZLES (16)		.00	.00	.00	.00	.00	.00	.00	.00
3) PUMPS (0)		33.33	.00	.00	.00	.00	.00	.00	.00
4) THST VCTR (19)		.00	.00	.00	.00	.00	.00	.00	80.00
5) CHAMBER (0)		.00	.00	.00	.00	.00	.00	.00	.00
6) PROPELLANT (32)		.00	.00	.00	.00	.00	.00	.00	51.44
TOTAL		.00	.00	.00	.00	.00	.00	.00	31.98

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1.4.1 - L BSD ICRM - ENGINES		- MOTOR CASES							
FACTOR	WT	025	026	028	030	031	033	035	036
1) MNFCT/DSGN	*(83)	.00	.00	.00	.00	.00	.00	.00	.00
2) ANALYSIS	*(8)	.00	.00	.00	.00	.00	.00	.00	.00
3) TEST	*(8)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.4.2 - L BSD ICRM - ENGINES		- NOZZLES							
FACTOR	WT	025	026	028	030	031	033	035	036
1) EXIT CONE	*(35)	.00	.00	.00	.00	.00	.00	.00	.00
2) THROATS	*(50)	.00	.00	.00	.00	.00	.00	.00	.00
3) ATTCH-CASE	*(15)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.4.3 - L BSD ICRM - ENGINE		- PUMPS							
FACTOR	WT	025	026	028	030	031	033	035	036
1) CASES	*(22)	.00	.00	.00	.00	.00	.00	.00	.00
2) GEARS	*(22)	50.00	.00	.00	.00	.00	.00	.00	.00
3) TURBINES	*(22)	50.00	.00	.00	.00	.00	.00	.00	.00
4) IMPELLERS	*(22)	50.00	.00	.00	.00	.00	.00	.00	.00
5) BEARINGS	*(11)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		33.33	.00	.00	.00	.00	.00	.00	.00

1.4.4 - L BSD ICRM - ENGINE		- THRST VOTE							
FACTOR	WT	025	026	028	030	031	033	035	036
1) ACTUATORS	*(33)	.00	.00	.00	.00	.00	.00	.00	60.00
2) LIO OF GAS	*(33)	.00	.00	.00	.00	.00	.00	.00	90.00
3) CONTROLS	*(33)	.00	.00	.00	.00	.00	.00	.00	90.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	80.00

1.4.5 - L BSD ICRM - ENGINES		- CHAMBER							
FACTOR	WT	025	026	028	030	031	033	035	036
1) CASES	*(100)	.00	.00	.00	.00	.00	.00	.00	.00
2) COOLING	*(0)	.00	.00	.00	.00	.00	.00	.00	.00
3) INJECTOR	*(0)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.4.6 - L BSD ICRM - ENGINES		- PROPELLANT							
FACTOR	WT	025	026	028	030	031	033	035	036
1) GRAIN DSGN	*(29)	.00	.00	.00	.00	.00	.00	.00	40.00
2) ANALYSIS	*(3)	.00	.00	.00	.00	.00	.00	.00	50.00
3) COMPOSTIN	*(11)	.00	.00	.00	.00	.00	.00	.00	50.00
4) CSTNG CRNG	*(29)	.00	.00	.00	.00	.00	.00	.00	15.00
5) THRST TERM	*(29)	.00	.00	.00	.00	.00	.00	.00	100.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	51.44

1.5 - L BSD ICRM - MSL STRUCT									
FACTOR	WT	025	026	028	030	031	033	035	036
1) DESIGN	*(30)	.00	.00	.00	.00	.00	.00	.00	.00
2) MANUFACTG	*(70)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

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1.6 - L BSD ICBM - GDNCE,CNTL

FACTOR	WT	025	026	028	030	031	033	035	036
1) INERTIAL (61)		.00	.00	.00	.00	.00	.00	.00	.00
2) STELLAR *(9)		.00	.00	60.00	.00	.00	.00	.00	.00
3) TRMNL HMNG *(30)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	5.40	.00	.00	.00	.00	.00

1.6.1 - L BSD ICBM - GDNCE,CNTL - INERTIAL

FACTOR	WT	025	026	028	030	031	033	035	036
1) INSTMT-TM *(0)		.00	.00	.00	.00	.00	.00	.00	.00
2) GYROS *(36)		.00	.00	.00	.00	.00	.00	.00	.00
3) ACCLERMTRS *(27)		.00	.00	.00	.00	.00	.00	.00	.00
4) CONTROL (36)		.00	.00	.00	.00	.00	.00	.00	.00
5) CASES *(0)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.6.1.4 - L BSD ICBM - GDNCE,CNTL - INERTIAL - CONTROL

FACTOR	WT	025	026	028	030	031	033	035	036
1) COMPUTERS (88)		.00	.00	.00	.00	.00	.00	.00	.00
2) SOFTWARE *(9)		.00	.00	.00	.00	.00	.00	.00	.00
3) ALGORITHM *(0)		.00	.00	.00	.00	.00	.00	.00	.00
4) GEODET/PHY *(3)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.6.1.4.1 - GDNCE,CNTL - INERTIAL - CONTROL - COMPUTERS

FACTOR	WT	025	026	028	030	031	033	035	036
1) MEMRY CORR *(50)		.00	.00	.00	.00	.00	.00	.00	.00
2) INTEG CRCT *(45)		.00	.00	.00	.00	.00	.00	.00	.00
3) PACKAGING *(5)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.7 - L BSD ICBM - ENTRY VEL

FACTOR	WT	025	026	028	030	031	033	035	036
1) PEN AID *(9)		.00	.00	.00	.00	.00	.00	.00	.00
2) ROMK *(5)		.00	.00	5.00	.00	.00	.00	.00	.00
3) HEAT SHLD *(36)		.00	.00	.00	.00	.00	.00	.00	.00
4) STRUCTURE *(4)		.00	.00	.00	.00	.00	.00	.00	.00
5) NOSE-TIP *(36)		.00	.00	.00	10.00	10.00	.00	.00	.00
6) ARMNG,FZNG *(9)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.25	3.64	3.64	.00	.00	.00

NODE

WEIGHT

SYSTEM SCORES

037 038 041 050 054 061 062 065

1	- L BSD ICBM (WT: 100)							
1.1	- TESTING (WT: 5)							
1.1.1	- LANCH AREA (WT: 38)							
1.1.1.1	- INSHNTATN (WT: 77)	0	0	15	0	0	0	0
1.1.1.2	- SILO-HRDNS (WT: 23)	0	0	0	0	0	0	0
1.1.2	- INST-IMPCT (WT: 5)	0	0	50	0	0	0	0
1.1.3	- NUCLR EFCT (WT: 57)	0	0	0	0	0	0	0
1.2	- BASING (WT: 2)							
1.2.1	- SECURITY (WT: 59)	0	0	0	0	0	0	0
1.2.2	- VULNRBLTY (WT: 41)	0	0	0	0	0	0	0
1.2.3	- RELD CPBLY (WT: 0)	0	0	0	0	0	0	0
1.3	- TEL (WT: 1)							
1.3.1	- ENVMT CNTL (WT: 0)	0	0	0	0	0	0	0
1.3.2	- MOTIVE PWR (WT: 0)	0	0	0	0	0	0	0
1.3.3	- DRIVE TRNS (WT: 0)	0	0	0	0	0	0	0
1.3.4	- ELCTL PWR (WT: 44)	0	15	0	0	0	0	0
1.3.5	- ACTUATORS (WT: 0)	0	0	0	0	0	0	0
1.3.6	- STRUCTURE (WT: 11)	0	0	0	0	0	0	0
1.3.7	- COMND/CNTL (WT: 44)	0	0	0	0	0	0	0
1.4	- ENGINES (WT: 20)							
1.4.1	- MOTOR CSES (WT: 32)							
1.4.1.1	- MNFCT/DSGN (WT: 83)	0	0	0	0	0	0	0
1.4.1.2	- ANALYSIS (WT: 8)	0	0	0	0	40	0	0
1.4.1.3	- TEST (WT: 8)	0	0	0	0	20	0	0
1.4.2	- NOZZLES (WT: 16)							
1.4.2.1	- EXIT CONE (WT: 35)	0	0	0	0	0	0	0
1.4.2.2	- THROATS (WT: 50)	0	0	0	0	0	0	0
1.4.2.3	- ATTCH-CASE (WT: 15)	0	0	0	0	0	0	0
1.4.3	- PUMPS (WT: 0)							
1.4.3.1	- CASES (WT: 22)	0	0	0	0	0	0	0
1.4.3.2	- GEARS (WT: 22)	0	0	0	0	0	0	0
1.4.3.3	- TURBINES (WT: 22)	0	0	0	0	0	0	0
1.4.3.4	- IMPELLERS (WT: 22)	0	0	0	0	0	0	0
1.4.3.5	- BEARINGS (WT: 11)	0	0	0	0	0	0	0
1.4.4	- THRST VCTR (WT: 19)							
1.4.4.1	- ACTUATORS (WT: 33)	0	0	0	0	0	0	0
1.4.4.2	- LIQ OR GAS (WT: 33)	0	0	0	0	0	0	0
1.4.4.3	- CONTROLS (WT: 33)	0	0	0	0	0	0	0
1.4.5	- CHAMBER (WT: 0)							
1.4.5.1	- CASES (WT: 100)	0	0	0	0	0	0	0
1.4.5.2	- COOLING (WT: 0)	0	0	0	0	0	0	0
1.4.5.3	- INJECTOR (WT: 0)	0	0	0	0	0	0	0
1.4.6	- PROPELLANT (WT: 32)							
1.4.6.1	- GRAIN DSGN (WT: 29)	0	0	0	0	0	0	0
1.4.6.2	- ANALYSIS (WT: 3)	0	0	0	0	0	0	0
1.4.6.3	- COMPOSTIN (WT: 11)	0	0	0	0	0	0	0
1.4.6.4	- CSTNG CRNG (WT: 29)	0	0	0	0	0	0	0
1.4.6.5	- THRST TERM (WT: 29)	0	0	0	0	0	0	0
1.5	- MSL STRUCT (WT: 1)							
1.5.1	- DESIGN (WT: 30)	0	0	0	0	0	0	0
1.5.2	- MANUFACTING (WT: 70)	0	0	0	0	0	0	0
1.6	- GDNCE, CNTL (WT: 26)							
1.6.1	- INERTIAL (WT: 61)							
1.6.1.1	- INSTANT-TM (WT: 0)	0	0	0	0	0	0	0
1.6.1.2	- GYROS (WT: 36)	15	0	0	35	0	5	0
1.6.1.3	- ACCLERMTRS (WT: 27)	40	0	0	60	0	0	0
1.6.1.4	- CONTROL (WT: 36)							
1.6.1.4.1	- COMPUTERS (WT: 88)							
1.6.1.4.1.1	- MEMRY CORF (WT: 50)	0	0	0	0	10	0	0
1.6.1.4.1.2	- INTEG CRCT (WT: 45)	0	0	0	0	100	0	0
1.6.1.4.1.3	- PACKAGING (WT: 5)	0	0	0	0	35	0	0
1.6.1.4.2	- SOFTWARE (WT: 9)	0	0	0	0	0	0	0
1.6.1.4.3	- ALGORITHMS (WT: 0)	0	0	0	0	0	0	0
1.6.1.4.4	- GEODET/PHY (WT: 3)	0	0	0	0	0	0	0
1.6.1.4.5	- CASES (WT: 0)	0	0	0	10	0	0	0
1.6.2	- STELLAR (WT: 9)	0	0	0	0	0	0	0
1.6.3	- TRMNL HMNG (WT: 30)	0	0	50	0	0	50	0
1.7	- RENTRY VCL (WT: 45)							
1.7.1	- PEN AID (WT: 9)	0	0	0	0	0	0	0
1.7.2	- BOMB (WT: 5)	0	0	0	0	0	40	0
1.7.3	- HEAT SHLD (WT: 36)	0	0	0	0	0	10	0
1.7.4	- STRUCTURE (WT: 4)	0	0	0	0	0	0	0
1.7.5	- NOSE-TIP (WT: 36)	0	0	0	0	0	20	0
1.7.6	- ARMNG. FZNG (WT: 9)	0	20	0	40	0	0	20

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1 - L BSD ICRM

FACTOR	WT	037	038	041	050	054	061	062	065
1) TESTING (5)		.00	.00	6.78	.00	.00	.00	.00	.00
2) BASING (2)		.00	.00	.00	.00	.00	.00	.00	.00
3) TEL (1)		.00	6.67	.00	.00	.00	.00	.00	.00
4) ENGINES (20)		.00	.00	.00	.00	1.62	.00	.00	.00
5) MSL STRUCT (1)		.00	.00	.00	.00	.00	.00	.00	.00
6) GDNCE,CNTL (26)		9.98	.00	15.00	17.75	10.10	1.11	15.00	.00
7) RENTRY VCL (45)		.00	1.82	.00	3.64	.00	12.93	.00	1.82
TOTAL		2.60	.88	4.24	6.25	2.95	6.11	3.90	.82

1.1 - L BSD ICRM - TESTING

FACTOR	WT	037	038	041	050	054	061	062	065
1) LANCH AREA (38)		.00	.00	11.54	.00	.00	.00	.00	.00
2) INST-IMPCT *(5)		.00	.00	50.00	.00	.00	.00	.00	.00
3) NUCLR EFCT *(57)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	6.78	.00	.00	.00	.00	.00

1.1.1 - L BSD ICRM - TESTING

FACTOR	WT	037	038	041	050	054	061	062	065
1) INSMNTATN *(77)		.00	.00	15.00	.00	.00	.00	.00	.00
2) SILO-HRDN *(23)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	11.54	.00	.00	.00	.00	.00

- LANCH AREA

1.2 - L BSD ICRM - BASING

FACTOR	WT	037	038	041	050	054	061	062	065
1) SECURITY *(59)		.00	.00	.00	.00	.00	.00	.00	.00
2) VULNERABLY *(41)		.00	.00	.00	.00	.00	.00	.00	.00
3) RELO CPLY *(0)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3 - L BSD ICRM - TEL

FACTOR	WT	037	038	041	050	054	061	062	065
1) ENVMT CNTL *(0)		.00	.00	.00	.00	.00	.00	.00	.00
2) MOTIVE FWR *(0)		.00	.00	.00	.00	.00	.00	.00	.00
3) DRIVE TRNS *(0)		.00	.00	.00	.00	.00	.00	.00	.00
4) ELCTI FWR *(44)		.00	15.00	.00	.00	.00	.00	.00	.00
5) ACTUATORS *(0)		.00	.00	.00	.00	.00	.00	.00	.00
6) STRUCTURE *(11)		.00	.00	.00	.00	.00	.00	.00	.00
7) COMND/CNTL *(44)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	6.67	.00	.00	.00	.00	.00	.00

1.4 - L BSD ICRM - ENGINES

FACTOR	WT	037	038	041	050	054	061	062	065
1) MOTOR CSSES (32)		.00	.00	.00	.00	5.00	.00	.00	.00
2) NOZZLES (16)		.00	.00	.00	.00	.00	.00	.00	.00
3) PUMPS (0)		.00	.00	.00	.00	.00	.00	.00	.00
4) THRST VCTR (19)		.00	.00	.00	.00	.00	.00	.00	.00
5) CHAMBER (0)		.00	.00	.00	.00	.00	.00	.00	.00
6) PROPELLANT (32)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	1.62	.00	.00	.00

ICBM-4 TUESDAY 8/19/1989 16:48

1.4.1 - L BSD ICBM - ENGINES				- MOTOR CASES						
FACTOR	WT	037		038	041	050	054	061	062	065
1) MNFCT/DSGN	*(83)	.00		.00	.00	.00	.00	.00	.00	.00
2) ANALYSIS	*(8)	.00		.00	.00	.00	40.00	.00	.00	.00
3) TEST	*(8)	.00		.00	.00	.00	20.00	.00	.00	.00
TOTAL		.00		.00	.00	.00	5.00	.00	.00	.00
1.4.2 - L BSD ICBM - ENGINES				- NOZZLES						
FACTOR	WT	037		038	041	050	054	061	062	065
1) EXIT CONE	*(35)	.00		.00	.00	.00	.00	.00	.00	.00
2) THROATS	*(50)	.00		.00	.00	.00	.00	.00	.00	.00
3) ATTCH-CASE	*(15)	.00		.00	.00	.00	.00	.00	.00	.00
TOTAL		.00		.00	.00	.00	.00	.00	.00	.00
1.4.3 - L BSD ICBM - ENGINES				- PUMPS						
FACTOR	WT	037		038	041	050	054	061	062	065
1) CASES	*(22)	.00		.00	.00	.00	.00	.00	.00	.00
2) GEARS	*(22)	.00		.00	.00	.00	.00	.00	.00	.00
3) TURBINES	*(22)	.00		.00	.00	.00	.00	.00	.00	.00
4) IMPELLERS	*(22)	.00		.00	.00	.00	.00	.00	.00	.00
5) BEARINGS	*(11)	.00		.00	.00	.00	.00	.00	.00	.00
TOTAL		.00		.00	.00	.00	.00	.00	.00	.00
1.4.4 - L BSD ICBM - ENGINES				- THRST VCTR						
FACTOR	WT	037		038	041	050	054	061	062	065
1) ACTUATORS	*(33)	.00		.00	.00	.00	.00	.00	.00	.00
2) LIQ OR GAS	*(33)	.00		.00	.00	.00	.00	.00	.00	.00
3) CONTROLS	*(33)	.00		.00	.00	.00	.00	.00	.00	.00
TOTAL		.00		.00	.00	.00	.00	.00	.00	.00
1.4.5 - L BSD ICBM - ENGINES				- CHAMBER						
FACTOR	WT	037		038	041	050	054	061	062	065
1) CASES	*(100)	.00		.00	.00	.00	.00	.00	.00	.00
2) COOLING	*(0)	.00		.00	.00	.00	.00	.00	.00	.00
3) INJECTOR	*(0)	.00		.00	.00	.00	.00	.00	.00	.00
TOTAL		.00		.00	.00	.00	.00	.00	.00	.00
1.4.6 - L BSD ICBM - ENGINES				- PROPELLANT						
FACTOR	WT	037		038	041	050	054	061	062	065
1) GRAIN DSGN	*(29)	.00		.00	.00	.00	.00	.00	.00	.00
2) ANALYSIS	*(3)	.00		.00	.00	.00	.00	.00	.00	.00
3) COMPOSTIN	*(11)	.00		.00	.00	.00	.00	.00	.00	.00
4) CSTNG CRNG	*(29)	.00		.00	.00	.00	.00	.00	.00	.00
5) THRST TERM	*(29)	.00		.00	.00	.00	.00	.00	.00	.00
TOTAL		.00		.00	.00	.00	.00	.00	.00	.00
1.5 - L BSD ICBM - MSL STRUCT										
FACTOR	WT	037		038	041	050	054	061	062	065
1) DESIGN	*(30)	.00		.00	.00	.00	.00	.00	.00	.00
2) MANUFACTG	*(70)	.00		.00	.00	.00	.00	.00	.00	.00
TOTAL		.00		.00	.00	.00	.00	.00	.00	.00

ICBM-4 TUESDAY 8/19/1980 16:48

1.6 - L BSD ICBM - GDNCE,CNTL

FACTOR	WT	037	038	041	050	054	061	062	065
1) INERTIAL (61)		16.36	.00	.00	29.09	16.56	1.82	.00	.00
2) STELLAR *(9)		.00	.00	.00	.00	.00	.00	.00	.00
3) TRMNL HMNG *(30)		.00	.00	50.00	.00	.00	.00	50.00	.00
TOTAL		9.98	.00	15.00	17.75	10.10	1.11	15.00	.00

1.6.1 - L BSD ICBM - GDNCE,CNTL - INERTIAL

FACTOR	WT	037	038	041	050	054	061	062	065
1) INSTMT-TM *(0)		.00	.00	.00	.00	.00	.00	.00	.00
2) GYROS *(36)		15.00	.00	.00	35.00	.00	5.00	.00	.00
3) ACCLERMTRS *(27)		40.00	.00	.00	60.00	.00	.00	.00	.00
4) CONTROL (36)		.00	.00	.00	.00	45.54	.00	.00	.00
5) CASES *(0)		.00	.00	.00	10.00	.00	.00	.00	.00
TOTAL		16.36	.00	.00	29.09	16.56	1.82	.00	.00

1.6.1.4 - L BSD ICBM - GDNCE,CNTL - INERTIAL - CONTROL

FACTOR	WT	037	038	041	050	054	061	062	065
1) COMPUTERS (88)		.00	.00	.00	.00	51.75	.00	.00	.00
2) SOFTWARE *(9)		.00	.00	.00	.00	.00	.00	.00	.00
3) ALGORITHMS *(0)		.00	.00	.00	.00	.00	.00	.00	.00
4) GEOMETRY *(3)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	45.54	.00	.00	.00

1.6.1.4.1 - GDNCE,CNTL - INERTIAL - CONTROL - COMPUTERS

FACTOR	WT	037	038	041	050	054	061	062	065
1) MEMRY CODE *(50)		.00	.00	.00	.00	10.00	.00	.00	.00
2) INTEG CRCT *(45)		.00	.00	.00	.00	100.00	.00	.00	.00
3) PACKAGING *(5)		.00	.00	.00	.00	35.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	51.75	.00	.00	.00

1.7 - L BSD ICBM - PENTRY VOI

FACTOR	WT	037	038	041	050	054	061	062	065
1) PEN ALT *(9)		.00	.00	.00	.00	.00	.00	.00	.00
2) IRMB *(5)		.00	.00	.00	.00	.00	40.00	.00	.00
3) HEAT SHLD *(36)		.00	.00	.00	.00	.00	10.00	.00	.00
4) STRUCTUFF *(4)		.00	.00	.00	.00	.00	.00	.00	.00
5) NOSE-TIF *(36)		.00	.00	.00	.00	.00	20.00	.00	.00
6) ARMNG,FZNG *(9)		.00	20.00	.00	40.00	.00	.00	.00	20.00
TOTAL		.00	1.82	.00	3.64	.00	12.93	.00	1.82

NODE

WEIGHT

SYSTEM SCORES

066 068 070 071 072 073 075 078

1	- L BSD ICBM (WT: 100)								
1.1	- TESTING (WT: 5)								
1.1.1	- LANCH AREA (WT: 38)								
1.1.1.1	- INSMNTATN (WT: 77)	23	0	0	30	0	12	0	0
1.1.1.2	- SILO-HRDNS (WT: 23)	0	0	50	50	0	0	0	0
1.1.2	- INST-IMPCT (WT: 5)	0	0	0	0	0	0	0	0
1.1.3	- NUCLR EFCT (WT: 57)	20	0	7	17	0	2	0	0
1.2	- BASING (WT: 2)								
1.2.1	- SECURITY (WT: 59)	0	0	0	0	0	0	0	0
1.2.2	- VULNRBLTY (WT: 41)	0	0	0	0	0	0	0	0
1.2.3	- RELO CPRLY (WT: 0)	0	0	0	0	0	0	0	0
1.3	- TEL (WT: 1)								
1.3.1	- ENVMT CNTL (WT: 0)	0	0	0	0	0	0	0	0
1.3.2	- MOTIVE PWR (WT: 0)	0	0	0	0	0	0	0	0
1.3.3	- DRIVE TRNS (WT: 0)	0	0	0	0	0	0	0	0
1.3.4	- ELCTL PWR (WT: 44)	0	0	0	0	0	0	0	0
1.3.5	- ACTUATORS (WT: 0)	0	0	0	0	0	0	0	0
1.3.6	- STRUCTURE (WT: 11)	0	0	0	0	0	0	0	0
1.3.7	- COMND/CNTL (WT: 44)	0	0	0	0	0	0	0	0
1.4	- ENGINES (WT: 20)								
1.4.1	- MOTOR CASES (WT: 32)								
1.4.1.1	- MNFCT/DSGN (WT: 83)	0	0	0	0	25	0	0	0
1.4.1.2	- ANALYSIS (WT: 8)	0	0	0	0	10	0	20	0
1.4.1.3	- TEST (WT: 8)	0	0	0	0	0	0	20	0
1.4.2	- NOZZLES (WT: 16)								
1.4.2.1	- EXIT CONF (WT: 35)	0	0	0	0	5	0	0	0
1.4.2.2	- THRUSTS (WT: 50)	0	0	0	0	5	0	0	0
1.4.2.3	- ATTCH-CASE (WT: 15)	0	0	0	0	0	0	0	0
1.4.3	- PUMPS (WT: 0)								
1.4.3.1	- CASES (WT: 22)	0	0	0	0	0	0	0	0
1.4.3.2	- GEARS (WT: 22)	0	0	0	0	0	0	0	0
1.4.3.3	- TURBINES (WT: 22)	0	0	0	0	0	0	0	0
1.4.3.4	- IMPELLERS (WT: 22)	0	0	0	0	0	0	0	0
1.4.3.5	- BEARINGS (WT: 11)	0	0	0	0	0	0	0	0
1.4.4	- THRST VCTR (WT: 19)								
1.4.4.1	- ACTUATORS (WT: 33)	0	0	0	0	0	0	0	0
1.4.4.2	- LIQ OF GAS (WT: 33)	0	0	0	0	0	0	0	0
1.4.4.3	- CONTROLS (WT: 33)	0	0	0	0	0	0	0	0
1.4.5	- CHAMBER (WT: 0)								
1.4.5.1	- CASES (WT: 100)	0	0	0	0	0	0	0	0
1.4.5.2	- COOLING (WT: 0)	0	0	0	0	0	0	0	0
1.4.5.3	- INJECTOR (WT: 0)	0	0	0	0	0	0	0	0
1.4.6	- PROPELLANT (WT: 32)								
1.4.6.1	- GRAIN DSGN (WT: 29)	0	0	0	0	10	0	0	0
1.4.6.2	- ANALYSIS (WT: 3)	0	0	0	0	50	0	0	0
1.4.6.3	- COMPOSTIN (WT: 11)	0	0	0	0	0	0	0	0
1.4.6.4	- CSTNG CRNG (WT: 29)	0	0	0	0	0	0	0	0
1.4.6.5	- THRST TERM (WT: 29)	0	0	0	0	0	0	0	0
1.5	- MSI STRUCT (WT: 1)								
1.5.1	- DESIGN (WT: 30)	0	0	0	0	10	0	0	0
1.5.2	- MANUFACTG (WT: 70)	0	0	0	0	0	0	0	0
1.6	- GNCE, CNTL (WT: 26)								
1.6.1	- INFRTIAL (WT: 61)								
1.6.1.1	- INSTANT-TM (WT: 0)	0	0	0	0	0	0	0	0
1.6.1.2	- GYROS (WT: 36)	0	25	0	0	0	0	0	0
1.6.1.3	- ACCLERMTRS (WT: 27)	0	0	0	0	0	0	0	0
1.6.1.4	- CONTROL (WT: 36)								
1.6.1.4.1	- COMPUTERS (WT: 88)								
1.6.1.4.1.1	- MEMRY CORE (WT: 50)	0	0	0	0	0	0	90	0
1.6.1.4.1.2	- INTEG CRCT (WT: 45)	0	0	0	0	0	0	0	0
1.6.1.4.1.3	- PACKAGING (WT: 5)	0	0	0	0	0	0	30	0
1.6.1.4.2	- SOFTWARE (WT: 9)	0	0	0	0	0	0	0	0
1.6.1.4.3	- ALGORITHMS (WT: 0)	0	0	0	0	0	0	0	0
1.6.1.4.4	- GEODET/PHY (WT: 3)	0	100	0	0	0	0	0	0
1.6.1.5	- CASES (WT: 0)	0	0	0	0	0	0	0	0
1.6.2	- STELLAR (WT: 9)	0	0	0	0	0	0	0	0
1.6.3	- TRMNL HMNG (WT: 30)	0	0	0	0	0	0	0	0
1.7	- RENTRY VCL (WT: 45)								
1.7.1	- PEN AID (WT: 9)	0	0	0	0	0	0	0	100
1.7.2	- BOMB (WT: 5)	0	0	10	0	0	0	40	0
1.7.3	- HEAT SHLD (WT: 36)	0	0	0	0	0	0	0	0
1.7.4	- STRUCTURE (WT: 4)	0	0	0	0	0	0	0	0
1.7.5	- NOSE-TIF (WT: 36)	0	0	0	0	0	0	0	0
1.7.6	- ARMNG, FZNG (WT: 9)	0	0	0	0	0	0	0	0

1 - L RSD ICBM

FACTOR	WT	066	068	070	071	072	073	075	078
1) TESTING (5)	18.17	.00	.00	8.40	22.90	.00	4.66	.00	.00
2) RASTING (2)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) TEL (1)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) ENGINES (20)	.00	.00	.00	.00	.00	9.10	.00	1.08	.00
5) MSL STRUCT (1)	.00	.00	.00	.00	.00	3.00	.00	.00	.00
6) GDNCF, CNL (26)	.00	6.21	.00	.00	.00	.00	.00	9.08	.00
7) RENTRY VCL (45)	.00	.00	.51	.00	.00	.00	.00	2.02	9.04
TOTAL	.91	1.61	.65	1.15	1.85	.23	3.48	4.09	

1.1 - L RSD ICBM - TESTING

FACTOR	WT	066	068	070	071	072	073	075	078
1) LANCH AREA (38)	17.69	.00	.00	11.54	34.62	.00	9.23	.00	.00
2) INST-IMPCT * (5)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) NUCLE EFCT * (57)	20.00	.00	.00	7.00	17.00	.00	2.00	.00	.00
TOTAL	18.17	.00	.00	8.40	22.90	.00	4.66	.00	.00

1.1.1 - L RSD ICBM - TESTING

FACTOR	WT	066	068	070	071	072	073	075	078
1) INSMNTATN * (77)	23.00	.00	.00	.00	30.00	.00	12.00	.00	.00
2) SILO-HFDM * (23)	.00	.00	.00	50.00	50.00	.00	.00	.00	.00
TOTAL	17.69	.00	.00	11.54	34.62	.00	9.23	.00	.00

- LANCH AREA

1.2 - L RSD ICBM - RASTING

FACTOR	WT	066	068	070	071	072	073	075	078
1) SECURITY * (59)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) VULNERABILITY * (41)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) RECD CBRLY * (0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00

1.3 - L RSD ICBM - TEL

FACTOR	WT	066	068	070	071	072	073	075	078
1) ENVMT CNL * (0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) MOTIVE PWR * (0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) DRIVE TRNC * (0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) ELCTL PWR * (44)	.00	.00	.00	.00	.00	.00	.00	.00	.00
5) ACTUATORS * (0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
6) STRUCTURE * (11)	.00	.00	.00	.00	.00	.00	.00	.00	.00
7) COMND/CNLT * (44)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00

1.4 - L RSD ICBM - ENGINES

FACTOR	WT	066	068	070	071	072	073	075	078
1) MOTOR CASES (32)	.00	.00	.00	.00	.00	21.67	.00	3.33	.00
2) NOZZLES (16)	.00	.00	.00	.00	.00	4.25	.00	.00	.00
3) PUMPS (0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) THRST VCTR (19)	.00	.00	.00	.00	.00	.00	.00	.00	.00
5) CHAMBER (0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
6) PROPELLANT (32)	.00	.00	.00	.00	.00	4.36	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	9.10	.00	1.08	.00

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1.4.1 - L BSD ICBM - ENGINES			- MOTOR CASES						
FACTOR	WT	066	068	070	071	072	073	075	078
1) MNFCT/DSGN *(83)		.00	.00	.00	.00	25.00	.00	.00	.00
2) ANALYSIS *(8)		.00	.00	.00	.00	10.00	.00	20.00	.00
3) TEST *(8)		.00	.00	.00	.00	.00	.00	20.00	.00
TOTAL		.00	.00	.00	.00	21.67	.00	3.33	.00

1.4.2 - L BSD ICBM - ENGINES			- NOZZLES						
FACTOR	WT	066	068	070	071	072	073	075	078
1) EXIT CONE *(35)		.00	.00	.00	.00	5.00	.00	.00	.00
2) THROATS *(50)		.00	.00	.00	.00	5.00	.00	.00	.00
3) ATTCH-CASE *(15)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	4.25	.00	.00	.00

1.4.3 - L BSD ICBM - ENGINES			- PUMPS						
FACTOR	WT	066	068	070	071	072	073	075	078
1) CASES *(22)		.00	.00	.00	.00	.00	.00	.00	.00
2) GEARS *(22)		.00	.00	.00	.00	.00	.00	.00	.00
3) TURBINES *(22)		.00	.00	.00	.00	.00	.00	.00	.00
4) IMPELLERS *(22)		.00	.00	.00	.00	.00	.00	.00	.00
5) BEARINGS *(11)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.4.4 - L BSD ICBM - ENGINES			- THRST VCTR						
FACTOR	WT	066	068	070	071	072	073	075	078
1) ACTUATORS *(33)		.00	.00	.00	.00	.00	.00	.00	.00
2) LQR OF G4" *(33)		.00	.00	.00	.00	.00	.00	.00	.00
3) CONTROLS *(33)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.4.5 - L BSD ICBM - ENGINES			- CHAMBER						
FACTOR	WT	066	068	070	071	072	073	075	078
1) CASES *(100)		.00	.00	.00	.00	.00	.00	.00	.00
2) COOLING *(0)		.00	.00	.00	.00	.00	.00	.00	.00
3) INJECTOR *(0)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.4.6 - L BSD ICBM - ENGINES			- PROPELLANT						
FACTOR	WT	066	068	070	071	072	073	075	078
1) GRAIN DSGN *(29)		.00	.00	.00	.00	10.00	.00	.00	.00
2) ANALYSIS *(3)		.00	.00	.00	.00	50.00	.00	.00	.00
3) COMPOSTIN *(11)		.00	.00	.00	.00	.00	.00	.00	.00
4) CSTNG CRNG *(29)		.00	.00	.00	.00	.00	.00	.00	.00
5) THRST TERM *(29)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	4.36	.00	.00	.00

1.5 - L BSD ICBM - MSL STRUCT									
FACTOR	WT	066	068	070	071	072	073	075	078
1) DESIGN *(30)		.00	.00	.00	.00	10.00	.00	.00	.00
2) MANUFACTING *(70)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	3.00	.00	.00	.00

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1.6 - L BSD ICRM - GDNCE,CNTL

FACTOR	WT	066	068	070	071	072	073	075	078
1) INERTIAL (61)		.00	10.18	.00	.00	.00	.00	14.88	.00
2) STELLAR *(9)		.00	.00	.00	.00	.00	.00	.00	.00
3) TRMNL HMNG *(30)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	6.21	.00	.00	.00	.00	9.08	.00

1.6.1 - L BSD ICRM - GDNCE,CNTL - INERTIAL

FACTOR	WT	066	068	070	071	072	073	075	078
1) INSTMT-TM *(0)		.00	.00	.00	.00	.00	.00	.00	.00
2) GYROC *(36)		.00	25.00	.00	.00	.00	.00	.00	.00
3) ACCELERMTR *(27)		.00	.00	.00	.00	.00	.00	.00	.00
4) CONTROL (36)		.00	3.00	.00	.00	.00	.00	40.92	.00
5) CASEC *(0)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	10.18	.00	.00	.00	.00	14.88	.00

1.6.1.4 - L BSD ICRM - GDNCE,CNTL - INERTIAL - CONTROL

FACTOR	WT	066	068	070	071	072	073	075	078
1) COMPUTERS (88)		.00	.00	.00	.00	.00	.00	40.50	.00
2) SOFTWARE *(9)		.00	.00	.00	.00	.00	.00	.00	.00
3) ALGORITHMS *(0)		.00	.00	.00	.00	.00	.00	.00	.00
4) GEODETICPH *(3)		.00	100.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	3.00	.00	.00	.00	.00	40.92	.00

1.6.1.4.1 - GDNCE,CNTL - INERTIAL - CONTROL - COMPUTERS

FACTOR	WT	066	068	070	071	072	073	075	078
1) MEMRY CORE *(50)		.00	.00	.00	.00	.00	.00	90.00	.00
2) INTEG CRT *(45)		.00	.00	.00	.00	.00	.00	.00	.00
3) PACKAGING *(5)		.00	.00	.00	.00	.00	.00	30.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	46.50	.00

1.7 - L BSD ICRM - ENTRY VOL

FACTOR	WT	066	068	070	071	072	073	075	078
1) PEN AID *(9)		.00	.00	.00	.00	.00	.00	.00	100.00
2) HOME *(5)		.00	.00	10.00	.00	.00	.00	40.00	.00
3) HEAT SHLD *(36)		.00	.00	.00	.00	.00	.00	.00	.00
4) STRUCTURE *(4)		.00	.00	.00	.00	.00	.00	.00	.00
5) NOSE-TIF *(36)		.00	.00	.00	.00	.00	.00	.00	.00
6) ARMING, FZNG *(9)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.51	.00	.00	.00	2.02	9.09

NODE

WEIGHT

SYSTEM SCORES

000 004 008 009 096 098

1	- L BSD ICBM (WT: 100)						
1.1	- TESTING (WT: 5)						
1.1.1	- LANCH AREA (WT: 38)						
1.1.1.1	- INSMNTATN (WT: 77)	0	0	0	0	0	0
1.1.1.2	- SILO-HRDNS (WT: 23)	0	0	0	0	0	0
1.1.2	- INST-IMPCT (WT: 5)	0	0	0	0	0	0
1.1.3	- NUCLR EFCT (WT: 57)	0	0	0	0	0	9
1.2	- BASING (WT: 2)						
1.2.1	- SECURITY (WT: 59)	0	0	0	0	100	0
1.2.2	- VULNRABLY (WT: 41)	0	0	0	0	0	15
1.2.3	- RELD CPBLY (WT: 0)	0	0	0	0	0	0
1.3	- TEL (WT: 1)						
1.3.1	- ENVMT CNTL (WT: 0)	0	0	0	0	0	0
1.3.2	- MOTIVE PWR (WT: 0)	0	0	0	0	0	0
1.3.3	- DRIVE TRNS (WT: 0)	0	0	0	0	0	0
1.3.4	- ELCTL PWR (WT: 44)	0	0	0	0	0	0
1.3.5	- ACTUATORS (WT: 0)	0	0	0	0	0	0
1.3.6	- STRUCTURE (WT: 11)	0	0	0	0	0	0
1.3.7	- COMND/CNTL (WT: 44)	0	0	0	0	0	25
1.4	- ENGINES (WT: 20)						
1.4.1	- MOTOR CSFS (WT: 32)						
1.4.1.1	- MNFCT/DSGN (WT: 83)	0	0	0	0	0	0
1.4.1.2	- ANALYSIS (WT: 8)	0	0	0	0	0	0
1.4.1.3	- TEST (WT: 8)	0	0	0	0	0	0
1.4.2	- NOZZLES (WT: 16)						
1.4.2.1	- EXIT CONE (WT: 35)	0	0	0	0	0	0
1.4.2.2	- THRDS (WT: 50)	0	0	0	0	0	0
1.4.2.3	- ATTCH-CASE (WT: 15)	0	0	0	0	0	0
1.4.3	- PUMPS (WT: 0)						
1.4.3.1	- CASES (WT: 22)	0	0	0	0	0	0
1.4.3.2	- GEARS (WT: 22)	0	0	0	0	0	0
1.4.3.3	- TURBINES (WT: 22)	0	0	0	0	0	0
1.4.3.4	- IMPELLERS (WT: 22)	0	0	0	0	0	0
1.4.3.5	- BEARINGS (WT: 11)	0	0	0	0	0	0
1.4.4	- THRST VCTR (WT: 19)						
1.4.4.1	- ACTUATORS (WT: 33)	0	0	0	0	0	0
1.4.4.2	- LIQ OR GAS (WT: 33)	0	0	0	0	0	0
1.4.4.3	- CONTROLS (WT: 33)	0	0	0	0	0	0
1.4.5	- CHAMBER (WT: 0)						
1.4.5.1	- CASES (WT: 100)	0	0	0	0	0	0
1.4.5.2	- COOLING (WT: 0)	0	0	0	0	0	0
1.4.5.3	- INJECTOR (WT: 0)	0	0	0	0	0	0
1.4.6	- PROPELLANT (WT: 32)						
1.4.6.1	- GRAIN DSGN (WT: 29)	50	0	0	0	0	0
1.4.6.2	- ANALYSIS (WT: 3)	0	0	0	0	0	0
1.4.6.3	- COMPOSTIN (WT: 11)	50	0	0	0	0	0
1.4.6.4	- CSTNG CRNG (WT: 29)	85	0	0	0	0	0
1.4.6.5	- THRST TERM (WT: 29)	0	0	0	0	0	0
1.5	- MSL STRUCT (WT: 1)						
1.5.1	- DESIGN (WT: 30)	0	0	0	20	0	0
1.5.2	- MANUFACTING (WT: 70)	0	0	0	0	0	0
1.6	- GDNCE, CNTL (WT: 26)						
1.6.1	- INERTIAL (WT: 61)						
1.6.1.1	- INSTMT-TM (WT: 0)	0	0	0	0	0	0
1.6.1.2	- GYROS (WT: 36)	0	0	0	0	0	0
1.6.1.3	- ACCLFRMTRS (WT: 27)	0	0	0	0	0	0
1.6.1.4	- CONTROL (WT: 36)						
1.6.1.4.1	- COMPUTERS (WT: 88)						
1.6.1.4.1.1	- MEMRY CORE (WT: 50)	0	0	0	0	0	0
1.6.1.4.1.2	- INTEG CRCT (WT: 45)	0	0	0	0	0	0
1.6.1.4.1.3	- PACKAGING (WT: 5)	0	25	0	0	0	0
1.6.1.4.2	- SOFTWARE (WT: 9)	0	0	0	0	0	0
1.6.1.4.3	- ALGORITHMS (WT: 0)	0	0	0	0	0	0
1.6.1.4.4	- GEODET/PHY (WT: 3)	0	0	0	0	0	0
1.6.1.5	- CASES (WT: 0)	0	0	0	0	0	0
1.6.2	- STELLAR (WT: 9)	0	0	40	0	0	0
1.6.3	- TRMNL HMNG (WT: 30)	0	0	0	0	0	0
1.7	- RENTRY VCL (WT: 45)						
1.7.1	- PEN AID (WT: 9)	0	0	0	0	0	0
1.7.2	- BOMB (WT: 5)	0	0	0	0	0	0
1.7.3	- HEAT SHLD (WT: 36)	0	0	0	0	0	0
1.7.4	- STRUCTURE (WT: 4)	0	0	0	0	0	0
1.7.5	- NOSE-TIP (WT: 36)	0	0	0	0	0	0
1.7.6	- ARMNG, FZNG (WT: 9)	0	0	0	0	0	0

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1 - L RSD ICRM

FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) TESTING (5)	.00	.00	.00	.00	.00	.00	5.14	4.60	5.00
2) BASING (2)	.00	.00	.00	.00	.00	58.82	6.18	23.27	2.00
3) TEL (1)	.00	.00	.00	.00	.00	.00	11.11	1.99	1.00
4) ENGINES (20)	14.29	.00	.00	.00	.00	.00	.00	51.17	20.00
5) MSL STRUCT (1)	.00	.00	.00	6.00	.00	.00	.00	1.07	1.00
6) GDNCF, CNL (26)	.00	.24	3.60	.00	.00	.00	.00	17.89	26.00
7) RENTRY VCL (45)	.00	.00	.00	.00	.00	.00	.00	.00	45.00
TOTAL	2.86	.06	.94	.06	1.18	.49	100.00	100.00	

1.1 - L RSD ICRM - TESTING

FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) LANCH AREA (38)	.00	.00	.00	.00	.00	.00	.00	.00	1.90
2) INST-IMPCT *(5)	.00	.00	.00	.00	.00	.00	.00	.00	.24
3) NUCLE EFCT *(57)	.00	.00	.00	.00	.00	.00	9.00	4.60	2.86
TOTAL	.00	.00	.00	.00	.00	.00	5.14	4.60	5.00

1.1.1 - L RSD ICRM - TESTING - LANCH AREA

FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) INCMNTATN *(77)	.00	.00	.00	.00	.00	.00	.00	.00	1.47
2) SJLD-HRONS *(23)	.00	.00	.00	.00	.00	.00	.00	.00	.44
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	1.90

1.2 - L RSD ICRM - BASING

FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) SECURITY *(59)	.00	.00	.00	.00	100.00	.00	.00	21.06	1.18
2) VULNERABILITY *(41)	.00	.00	.00	.00	.00	.00	15.00	2.21	.82
3) RELT DEPLY *(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	58.82	6.18	23.27	2.00

1.3 - L RSD ICRM - TEL

FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) ENVMT CNL *(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) MOTIVE FWR *(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) DRIVE TRNS *(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) ELCTL FWR *(44)	.00	.00	.00	.00	.00	.00	.00	.00	.44
5) ACTUATORS *(0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
6) STRUCTURE *(11)	.00	.00	.00	.00	.00	.00	.00	.00	.11
7) COMND/CNLT *(44)	.00	.00	.00	.00	.00	.00	25.00	1.99	.44
TOTAL	.00	.00	.00	.00	.00	.00	11.11	1.99	1.00

1.4 - L RSD ICRM - ENGINES

FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) MOTOR CASES (32)	.00	.00	.00	.00	.00	.00	.00	.00	6.46
2) NOZZLES (16)	.00	.00	.00	.00	.00	.00	.00	.00	3.23
3) PUMPS (0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) THRST VCTR (19)	.00	.00	.00	.00	.00	.00	.00	.00	3.84
5) CHAMBER (0)	.00	.00	.00	.00	.00	.00	.00	.00	.00
6) PROPELLANT (32)	44.21	.00	.00	.00	.00	.00	.00	51.17	6.46
TOTAL	14.29	.00	.00	.00	.00	.00	.00	51.17	20.00

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1.4.1 - L BSD ICBM - ENGINES		- MOTOR CSES								
FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT	
1) MNFCT/DSGN *(83)		.00	.00	.00	.00	.00	.00	.00	5.39	
2) ANALYSIS *(8)		.00	.00	.00	.00	.00	.00	.00	.54	
3) TEST *(8)		.00	.00	.00	.00	.00	.00	.00	.54	
TOTAL		.00	.00	.00	.00	.00	.00	.00	6.46	

1.4.2 - L BSD ICBM - ENGINES		- NOZZLES								
FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT	
1) EXIT CONE *(35)		.00	.00	.00	.00	.00	.00	.00	1.13	
2) THROATS *(50)		.00	.00	.00	.00	.00	.00	.00	1.62	
3) ATTCH-CASE *(15)		.00	.00	.00	.00	.00	.00	.00	.48	
TOTAL		.00	.00	.00	.00	.00	.00	.00	3.23	

1.4.3 - L BSD ICBM - ENGINES		- PUMPS								
FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT	
1) CASES *(22)		.00	.00	.00	.00	.00	.00	.00	.00	
2) GEARS *(22)		.00	.00	.00	.00	.00	.00	.00	.00	
3) TURBINES *(22)		.00	.00	.00	.00	.00	.00	.00	.00	
4) IMPELLERS *(22)		.00	.00	.00	.00	.00	.00	.00	.00	
5) BEARINGS *(11)		.00	.00	.00	.00	.00	.00	.00	.00	
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00	

1.4.4 - L BSD ICBM - ENGINES		- THRST VCTR								
FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT	
1) ACTUATORS *(23)		.00	.00	.00	.00	.00	.00	.00	1.28	
2) LIO OF GAC *(33)		.00	.00	.00	.00	.00	.00	.00	1.28	
3) CONTROLS *(33)		.00	.00	.00	.00	.00	.00	.00	1.28	
TOTAL		.00	.00	.00	.00	.00	.00	.00	3.84	

1.4.5 - L BSD ICBM - ENGINES		- CHAMBER								
FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT	
1) CASES *(100)		.00	.00	.00	.00	.00	.00	.00	.00	
2) COOLING *(0)		.00	.00	.00	.00	.00	.00	.00	.00	
3) INJECTOR *(0)		.00	.00	.00	.00	.00	.00	.00	.00	
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00	

1.4.6 - L BSD ICBM - ENGINES		- PROPELLANT								
FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT	
1) GRAIN DSGN *(29)	50.00	.00	.00	.00	.00	.00	.00	16.62	1.86	
2) ANALYSIS *(3)	.00	.00	.00	.00	.00	.00	.00	.00	.19	
3) COMPOSTIN *(11)	50.00	.00	.00	.00	.00	.00	.00	6.30	.70	
4) CSTNG CRNG *(29)	85.00	.00	.00	.00	.00	.00	.00	28.25	1.86	
5) THRST TERM *(29)	.00	.00	.00	.00	.00	.00	.00	.00	1.86	
TOTAL	44.21	.00	.00	.00	.00	.00	.00	51.17	6.46	

1.5 - L BSD ICBM - MSL STRUCT									
FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) DESIGN *(30)	.00	.00	.00	20.00	.00	.00	.00	1.07	.30
2) MANUFACTING *(70)	.00	.00	.00	.00	.00	.00	.00	.00	.70
TOTAL	.00	.00	.00	6.00	.00	.00	.00	1.07	1.00

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1.6 - L BSD ICBM - GDNCE,CNTL

FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) INERTIAL	(61)	.00	.40	.00	.00	.00	.00	1.14	15.86
2) STELLAR	*(9)	.00	.00	40.00	.00	.00	.00	16.76	2.34
3) TRMNL HMNG	*(30)	.00	.00	.00	.00	.00	.00	.00	7.80
TOTAL		.00	.24	3.60	.00	.00	.00	17.89	26.00

1.6.1 - L BSD ICBM - GDNCE,CNTL - INERTIAL

FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) INSTMT-TM	*(0)	.00	.00	.00	.00	.00	.00	.00	.00
2) GYRO	*(36)	.00	.00	.00	.00	.00	.00	.00	5.77
3) ACCLERMTRS	*(27)	.00	.00	.00	.00	.00	.00	.00	4.33
4) CONTROL	(36)	.00	1.10	.00	.00	.00	.00	1.14	5.77
5) CASES	*(0)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.40	.00	.00	.00	.00	1.14	15.86

1.6.1.4 - L BSD ICBM - GDNCE,CNTL - INERTIAL - CONTROL

FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) COMPUTERS	(88)	.00	1.25	.00	.00	.00	.00	1.14	5.08
2) SOFTWARE	*(9)	.00	.00	.00	.00	.00	.00	.00	.52
3) ALGORITHMS	*(0)	.00	.00	.00	.00	.00	.00	.00	.00
4) GEODET/FHY	*(3)	.00	.00	.00	.00	.00	.00	.00	.17
TOTAL		.00	1.10	.00	.00	.00	.00	1.14	5.77

1.6.1.4.1 - GDNCE,CNTL - INERTIAL - CONTROL - COMPUTERS

FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) MEMRY CORE	*(50)	.00	.00	.00	.00	.00	.00	.00	2.54
2) INTEG CRCT	*(45)	.00	.00	.00	.00	.00	.00	.00	2.28
3) PACKAGING	*(5)	.00	25.00	.00	.00	.00	.00	1.14	.25
TOTAL		.00	1.25	.00	.00	.00	.00	1.14	5.08

1.7 - L BSD ICBM - ENTRY VCI

FACTOR	WT	080	084	088	089	096	098	DISC1	CUMWT
1) PEN AID	*(9)	.00	.00	.00	.00	.00	.00	.00	4.09
2) ROMK	*(5)	.00	.00	.00	.00	.00	.00	.00	2.27
3) HEAT SHLD	*(36)	.00	.00	.00	.00	.00	.00	.00	16.36
4) STRUCTURE	*(4)	.00	.00	.00	.00	.00	.00	.00	1.82
5) NOSE-TIF	*(36)	.00	.00	.00	.00	.00	.00	.00	16.36
6) ARMNG,FZNG	*(9)	.00	.00	.00	.00	.00	.00	.00	4.09
TOTAL		.00	.00	.00	.00	.00	.00	.00	45.00

APPENDIX B
TACTICAL AIR WARFARE STRUCTURE AND DATA

COMPLETED DATA SHEET

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NODE	WEIGHT	SYSTEM SCORES									
		001	002	003	005	007	009	010	012		
1 - TAC WAR	(WT: 100)										
1.1 - PLATFORM	(WT: 33)										
1.1.1 - ENGINES	(WT: 63)	8	2	8	6	5	5	5	12		
1.1.2 - AIRFRAMES	(WT: 38)	4	0	20	3	0	10	13	0		
1.2 - WEAPONS	(WT: 28)										
1.2.1 - CASNG/MTRS	(WT: 34)										
1.2.1.1 - GUNS	(WT: 41)	0	0	11	0	0	0	0	0		
1.2.1.2 - ROCKETS	(WT: 41)	1	0	30	0	0	0	0	0		
1.2.1.3 - RMR/RMR/LTS	(WT: 18)	1	0	30	0	0	0	0	0		
1.2.2 - INTERNALS	(WT: 47)										
1.2.2.1 - WARHD/CONV	(WT: 40)	3	0	10	0	0	0	10	3		
1.2.2.2 - FUZING	(WT: 21)	0	0	0	0	0	1	0	0		
1.2.2.3 - PROPELNTS	(WT: 38)	0	0	0	0	0	0	0	0		
1.2.3 - GUIDANCE	(WT: 20)										
1.2.3.1 - RADAR	(WT: 33)	0	0	0	0	0	0	0	0		
1.2.3.2 - PASV ELTRN	(WT: 11)	0	0	0	0	0	0	0	0		
1.2.3.3 - ELCTR OPTC	(WT: 56)	0	0	0	0	0	0	0	0		
1.3 - C3/I	(WT: 39)										
1.3.1 - EW	(WT: 9)	0	0	0	0	0	0	0	0		
1.3.2 - NAV	(WT: 10)										
1.3.2.1 - RADAR	(WT: 42)	0	0	0	0	0	0	0	0		
1.3.2.2 - PASV ELTRN	(WT: 33)	0	0	0	0	0	0	0	0		
1.3.2.3 - ELCTR OPTC	(WT: 25)	0	0	0	0	0	0	0	0		
1.3.3 - COMM	(WT: 22)	0	0	0	0	0	0	0	0		
1.3.4 - SURV	(WT: 39)										
1.3.4.1 - RADAR	(WT: 48)	0	0	0	0	0	0	0	0		
1.3.4.2 - PASV ELTRN	(WT: 24)	0	0	0	0	0	0	0	0		
1.3.4.3 - ELCTR OPTC	(WT: 29)	0	0	0	0	0	0	0	0		
1.3.5 - TARGETING	(WT: 20)										
1.3.5.1 - RADAR	(WT: 29)	0	0	0	0	0	0	0	0		
1.3.5.2 - PASV ELTRN	(WT: 14)	0	0	0	0	0	0	0	0		
1.3.5.3 - ELCTR OPTC	(WT: 57)	0	0	0	0	0	0	0	0		

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1 - TAC WAR

FACTOR	WT	001	002	003	005	007	008	010	012
1) PLATFORM	(33)	6.50	1.25	12.50	4.88	3.13	6.88	8.00	7.50
2) WEAPONS	(28)	.76	.00	9.35	.00	.00	.10	1.88	.96
3) C3/I	(39)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		2.36	.41	6.72	1.61	1.03	2.30	3.16	2.74

1.1 - TAC WAR - PLATFORM

FACTOR	WT	001	002	003	005	007	008	010	012
1) ENGINE	*(63)	8.00	2.00	8.00	6.00	5.00	5.00	5.00	12.00
2) AIRFRAMES	*(38)	4.00	.00	20.00	3.00	.00	10.00	13.00	.00
TOTAL		6.50	1.25	12.50	4.88	3.13	6.88	8.00	7.50

1.2 - TAC WAR - WEAPONS

FACTOR	WT	001	002	003	005	007	008	010	012
1) CASNG/MTRS	(34)	.59	.00	22.18	.00	.00	.00	.00	1.16
2) INTERNALS	(47)	1.21	.00	4.04	.00	.00	.21	4.04	1.21
3) GUIDANCE	(20)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.76	.00	9.35	.00	.00	.10	1.88	.96

1.2.1 - TAC WAR - WEAPONS - CASNG/MTRS

FACTOR	WT	001	002	003	005	007	008	010	012
1) GUID	*(41)	.00	.00	11.00	.00	.00	.00	.00	.00
2) ROCKETS	*(41)	1.00	.00	30.00	.00	.00	.00	.00	2.00
3) BOMB/MBLTS	*(18)	1.00	.00	30.00	.00	.00	.00	.00	2.00
TOTAL		.59	.00	22.18	.00	.00	.00	.00	1.16

1.2.2 - TAC WAR - WEAPONS - INTERNALS

FACTOR	WT	001	002	003	005	007	008	010	012
1) WASH/CONV	*(40)	3.00	.00	10.00	.00	.00	.00	10.00	3.00
2) FUZING	*(21)	.00	.00	.00	.00	.00	1.00	.00	.00
3) PROPELLTS	*(38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		1.21	.00	4.04	.00	.00	.21	4.04	1.21

1.2.3 - TAC WAR - WEAPONS - GUIDANCE

FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR	*(33)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASS ELTN	*(11)	.00	.00	.00	.00	.00	.00	.00	.00
3) FLCTR OPTC	*(56)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3 - TAC WAR - C3/I

FACTOR	WT	001	002	003	005	007	008	010	012
1) EW	*(9)	.00	.00	.00	.00	.00	.00	.00	.00
2) NAV	(10)	.00	.00	.00	.00	.00	.00	.00	.00
3) COMM	*(22)	.00	.00	.00	.00	.00	.00	.00	.00
4) SURV	(39)	.00	.00	.00	.00	.00	.00	.00	.00
5) TARGETING	(20)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

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1.3.2 - TAC WAR - C3/I		- NAV							
FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR *(42)		.00	.00	.00	.00	.00	.00	.00	.00
2) PASV FLTRN *(33)		.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OFTC *(25)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.4 - TAC WAR - C3/I		- SURV							
FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR *(48)		.00	.00	.00	.00	.00	.00	.00	.00
2) PASV FLTRN *(34)		.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OFTC *(29)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.5 - TAC WAR - C3/I		- TARGETING							
FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR *(29)		.00	.00	.00	.00	.00	.00	.00	.00
2) PASV FLTRN *(14)		.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OFTC *(57)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

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NODE	WEIGHT	SYSTEM SCORES							
		016	017	022	024	025	026	028	030
1 - TAC WAR	(WT 100)								
1.1 - PLATFORM	(WT 33)								
1.1.1 - ENGINES	(WT 63)	2	6	0	0	10	0	0	0
1.1.2 - AIRFRAMES	(WT 38)	5	4	2	0	10	0	0	0
1.2 - WEAPONS	(WT 28)								
1.2.1 - CASNG/MTRS	(WT 34)								
1.2.1.1 - GUNS	(WT 41)	11	2	11	0	58	2	0	0
1.2.1.2 - ROCKETS	(WT 41)	3	10	1	0	0	0	0	5
1.2.1.3 - BMR/BMRLTS	(WT 18)	3	10	1	0	0	0	0	5
1.2.2 - INTERNALS	(WT 47)								
1.2.2.1 - WARHD/CONV	(WT 40)	0	0	8	0	0	0	0	0
1.2.2.2 - FUZING	(WT 21)	1	0	1	3	0	0	0	0
1.2.2.3 - PROPELNTS	(WT 38)	0	0	0	0	0	0	0	0
1.2.3 - GUIDANCE	(WT 20)								
1.2.3.1 - RADAR	(WT 33)	0	0	0	17	0	0	0	0
1.2.3.2 - PASV ELTRN	(WT 11)	0	0	0	17	0	0	0	0
1.2.3.3 - ELCTR OFTC	(WT 56)	0	0	0	0	0	0	39	0
1.3 - C3/I	(WT 39)								
1.3.1 - EW	(WT 9)	0	0	0	15	0	0	0	0
1.3.2 - NAV	(WT 10)								
1.3.2.1 - RADAR	(WT 42)	0	0	0	17	0	0	0	0
1.3.2.2 - PASV ELTRN	(WT 33)	0	0	0	17	0	0	0	0
1.3.2.3 - ELCTR OFTC	(WT 25)	0	0	0	0	0	0	39	0
1.3.3 - COMM	(WT 22)	0	0	0	19	0	0	0	0
1.3.4 - SURV	(WT 39)								
1.3.4.1 - RADAR	(WT 48)	0	0	0	17	0	0	0	0
1.3.4.2 - PASV ELTRN	(WT 24)	0	0	0	17	0	0	0	0
1.3.4.3 - ELCTR OFTC	(WT 29)	0	0	0	0	0	0	39	0
1.3.5 - TARGETING	(WT 20)								
1.3.5.1 - RADAR	(WT 29)	0	0	0	17	0	0	0	0
1.3.5.2 - PASV ELTRN	(WT 14)	0	0	0	17	0	0	0	0
1.3.5.3 - ELCTR OFTC	(WT 57)	0	0	0	0	0	0	39	0

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1 - TAC WAR		WT	016	017	022	024	025	026	028	030
FACTOR										
1) PLATFORM	(33)	3.13	5.25	.75	.00	10.00	.00	.00	.00	.00
2) WEAPONS	(28)	2.22	2.26	3.33	1.78	8.04	.28	4.32	.99	.00
3) C3/I	(39)	.00	.00	.00	13.04	.00	.00	9.70	.00	.00
TOTAL			1.65	2.36	1.17	5.61	5.53	.08	5.01	.27

1.1 - TAC WAR - PLATFORM		WT	016	017	022	024	025	026	028	030
FACTOR										
1) ENGINE	*(63)	2.00	6.00	.00	.00	10.00	.00	.00	.00	.00
2) AIRFRAMES	*(38)	5.00	4.00	2.00	.00	10.00	.00	.00	.00	.00
TOTAL			3.13	5.25	.75	.00	10.00	.00	.00	.00

1.2 - TAC WAR - WEAPONS		WT	016	017	022	024	025	026	028	030
FACTOR										
1) CASNG/MTR	(34)	6.29	6.71	5.12	.00	23.88	.82	.00	2.94	.00
2) INTERNALS	(47)	.21	.00	3.45	.64	.00	.00	.00	.00	.00
3) GUIDANCE	(20)	.00	.00	.00	7.48	.00	.00	21.84	.00	.00
TOTAL			2.22	2.26	3.33	1.78	8.04	.28	4.32	.99

1.2.1 - TAC WAR - WEAPONS - CASNG MTRS		WT	016	017	022	024	025	026	028	030
FACTOR										
1) GUNT	*(41)	11.00	2.00	11.00	.00	58.00	2.00	.00	.00	.00
2) PROFLTS	*(41)	3.00	10.00	1.00	.00	.00	.00	.00	.00	5.00
3) RMR RMLT	*(18)	3.00	10.00	1.00	.00	.00	.00	.00	.00	5.00
TOTAL			6.29	6.71	5.12	.00	23.88	.82	.00	2.94

1.2.2 - TAC WAR - WEAPONS - INTERNALS		WT	016	017	022	024	025	026	028	030
FACTOR										
1) WARP CONV	*(40)	.00	.00	8.00	.00	.00	.00	.00	.00	.00
2) FLTING	*(21)	1.00	.00	1.00	3.00	.00	.00	.00	.00	.00
3) PROFLNTD	*(38)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL			.21	.00	3.45	.64	.00	.00	.00	.00

1.2.3 - TAC WAR - WEAPONS - GUIDANCE		WT	016	017	022	024	025	026	028	030
FACTOR										
1) RADAR	*(33)	.00	.00	.00	17.00	.00	.00	.00	.00	.00
2) PASV ELTEN	*(11)	.00	.00	.00	17.00	.00	.00	.00	.00	.00
3) ELEC OPTC	*(56)	.00	.00	.00	.00	.00	.00	39.00	.00	.00
TOTAL			.00	.00	.00	7.48	.00	.00	21.84	.00

1.3 - TAC WAR - C3-I		WT	016	017	022	024	025	026	028	030
FACTOR										
1) EW	*(9)	.00	.00	.00	15.00	.00	.00	.00	.00	.00
2) NAV	(10)	.00	.00	.00	12.75	.00	.00	9.75	.00	.00
3) COMB	*(22)	.00	.00	.00	19.00	.00	.00	.00	.00	.00
4) SURV	(39)	.00	.00	.00	12.14	.00	.00	11.14	.00	.00
5) TARGETING	(20)	.00	.00	.00	7.29	.00	.00	22.29	.00	.00
TOTAL			.00	.00	.00	13.04	.00	.00	9.70	.00

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1.3.2 - TAC WAR - C3/I		- NAV							
FACTOR	WT	016	017	022	024	025	026	028	030
1) RADAR	*(42)	.00	.00	.00	17.00	.00	.00	.00	.00
2) PASV ELTRN	*(33)	.00	.00	.00	17.00	.00	.00	.00	.00
3) ELCTR OPTC	*(25)	.00	.00	.00	.00	.00	.00	39.00	.00
TOTAL		.00	.00	.00	12.75	.00	.00	9.75	.00

1.3.4 - TAC WAR - C3/I		- SURV							
FACTOR	WT	016	017	022	024	025	026	028	030
1) RADAR	*(48)	.00	.00	.00	17.00	.00	.00	.00	.00
2) PASV ELTRN	*(24)	.00	.00	.00	17.00	.00	.00	.00	.00
3) ELCTR OPTC	*(29)	.00	.00	.00	.00	.00	.00	39.00	.00
TOTAL		.00	.00	.00	12.14	.00	.00	11.14	.00

1.3.5 - TAC WAR - C3/I		- TARGETING							
FACTOR	WT	016	017	022	024	025	026	028	030
1) RADAR	*(29)	.00	.00	.00	17.00	.00	.00	.00	.00
2) PASV ELTRN	*(14)	.00	.00	.00	17.00	.00	.00	.00	.00
3) ELCTR OPTC	*(52)	.00	.00	.00	.00	.00	.00	39.00	.00
TOTAL		.00	.00	.00	7.29	.00	.00	22.29	.00

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NODE	WEIGHT	SYSTEM SCORES							
		031	032	033	034	035	036	038	039
1 - TAC WAF	(WT 100)								
1.1 - PLATFORM	(WT 33)								
1.1.1 - ENGINES	(WT 63)	2	0	2	7	1	4	0	0
1.1.2 - AIRFRAMES	(WT 38)	6	6	2	0	0	0	0	0
1.2 - WEAPONS	(WT 28)								
1.2.1 - CASNG/MTRS	(WT 34)								
1.2.1.1 - GUNS	(WT 41)	0	0	2	0	0	0	0	0
1.2.1.2 - ROCKETS	(WT 41)	0	0	0	0	0	44	0	0
1.2.1.3 - BMR/BMHLTS	(WT 18)	0	0	0	0	0	44	0	0
1.2.2 - INTERNALS	(WT 47)								
1.2.2.1 - WARHD/CONV	(WT 40)	0	0	0	0	0	0	0	0
1.2.2.2 - FUZING	(WT 21)	0	0	0	0	5	0	0	0
1.2.2.3 - PROFFILTS	(WT 38)	0	0	0	0	0	0	0	0
1.2.3 - GUIDANCE	(WT 20)								
1.2.3.1 - RADAR	(WT 37)	0	0	0	0	0	0	5	8
1.2.3.2 - PASV ELTRN	(WT 11)	0	0	0	0	0	0	0	8
1.2.3.3 - ELCTR OPTC	(WT 52)	0	0	0	0	0	0	0	0
1.3 - C3-I	(WT 39)								
1.3.1 - EW	(WT 9)	0	0	0	0	0	0	5	8
1.3.2 - NAV	(WT 10)								
1.3.2.1 - RADAR	(WT 42)	0	0	0	0	0	0	5	8
1.3.2.2 - PASV ELTRN	(WT 33)	0	0	0	0	0	0	0	8
1.3.2.3 - ELCTR OPTC	(WT 25)	0	0	0	0	0	0	0	0
1.3.3 - COMM	(WT 27)	0	0	0	0	0	0	5	9
1.3.4 - SURV	(WT 39)								
1.3.4.1 - RADAR	(WT 48)	0	0	0	0	0	0	5	8
1.3.4.2 - PASV ELTRN	(WT 24)	0	0	0	0	0	0	0	8
1.3.4.3 - ELCTR OPTC	(WT 29)	0	0	0	0	0	0	0	0
1.3.5 - TARGETING	(WT 20)								
1.3.5.1 - RADAR	(WT 29)	0	0	0	0	0	0	5	8
1.3.5.2 - PASV ELTRN	(WT 14)	0	0	0	0	0	0	0	8
1.3.5.3 - ELCTR OPTC	(WT 57)	0	0	0	0	0	0	0	0

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1 - TAC WAR

FACTOR	WT	031	032	033	034	035	036	038	039
1) PLATFORM	(33)	3.50	2.25	2.00	4.38	.63	2.50	.00	.00
2) WEAPONS	(28)	.00	.00	.28	.00	.50	8.71	.33	.70
3) C3/I	(39)	.00	.00	.00	.00	.00	.00	2.99	6.24
TOTAL		1.15	.74	.74	1.44	.34	3.24	1.26	2.64

1.1 - TAC WAR - PLATFORM

FACTOR	WT	031	032	033	034	035	036	038	039
1) ENGINES	*(63)	2.00	.00	2.00	7.00	1.00	4.00	.00	.00
2) AIRFRAMES	*(38)	6.00	6.00	2.00	.00	.00	.00	.00	.00
TOTAL		3.50	2.25	2.00	4.38	.63	2.50	.00	.00

1.2 - TAC WAR - WEAPONS

FACTOR	WT	031	032	033	034	035	036	038	039
1) CASNG/MTES	(34)	.00	.00	.82	.00	.00	25.81	.00	.00
2) INTERNALS	(47)	.00	.00	.00	.00	1.06	.00	.00	.00
3) GUIDANCE	(25)	.00	.00	.00	.00	.00	.00	1.65	3.52
TOTAL		.00	.00	.82	.00	.00	8.71	.33	.70

1.2.1 - TAC WAR - WEAPONS - CASNG/MTES

FACTOR	WT	031	032	033	034	035	036	038	039
1) GUN	*(41)	.00	.00	2.00	.00	.00	.00	.00	.00
2) ROCKETS	*(41)	.00	.00	.00	.00	.00	44.00	.00	.00
3) RMR/RMELTS	*(18)	.00	.00	.00	.00	.00	44.00	.00	.00
TOTAL		.00	.00	.82	.00	.00	25.88	.00	.00

1.2.2 - TAC WAR - WEAPONS - INTERNALS

FACTOR	WT	031	032	033	034	035	036	038	039
1) WARHD/CONV	*(40)	.00	.00	.00	.00	.00	.00	.00	.00
2) FUZING	*(21)	.00	.00	.00	.00	5.00	.00	.00	.00
3) PROPELLNTS	*(38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	1.06	.00	.00	.00

1.2.3 - TAC WAR - WEAPONS - GUIDANCE

FACTOR	WT	031	032	033	034	035	036	038	039
1) RADAR	*(33)	.00	.00	.00	.00	.00	.00	5.00	8.00
2) PASSV ELTRN	*(11)	.00	.00	.00	.00	.00	.00	.00	8.00
3) ELCTR OPTC	*(56)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	1.65	3.52

1.3 - TAC WAR - C3/I

FACTOR	WT	031	032	033	034	035	036	038	039
1) EW	*(9)	.00	.00	.00	.00	.00	.00	5.00	8.00
2) NAV	(10)	.00	.00	.00	.00	.00	.00	2.06	6.00
3) COMM	*(22)	.00	.00	.00	.00	.00	.00	5.00	9.00
4) SURV	(39)	.00	.00	.00	.00	.00	.00	2.38	5.71
5) TARGETING	(20)	.00	.00	.00	.00	.00	.00	1.43	3.43
TOTAL		.00	.00	.00	.00	.00	.00	2.99	6.24

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1.3.2 - TAC WAR	- C3/I			- NAV						
FACTOR	WT	031	032	033	034	035	036	038	039	
1) RADAR	*(42)	.00	.00	.00	.00	.00	.00	5.00	8.00	
2) PASV ELTRN	*(33)	.00	.00	.00	.00	.00	.00	.00	8.00	
3) ELCTR OPTC	*(25)	.00	.00	.00	.00	.00	.00	.00	.00	
TOTAL		.00	.00	.00	.00	.00	.00	2.08	6.00	

1.3.4 - TAC WAR	- C3/I			- SURV						
FACTOR	WT	031	032	033	034	035	036	038	039	
1) RADAR	*(48)	.00	.00	.00	.00	.00	.00	5.00	8.00	
2) PASV ELTRN	*(24)	.00	.00	.00	.00	.00	.00	.00	8.00	
3) ELCTR OPTC	*(29)	.00	.00	.00	.00	.00	.00	.00	.00	
TOTAL		.00	.00	.00	.00	.00	.00	2.35	1.71	

1.3.5 - TAC WAR	- C3/I			- TARGETING						
FACTOR	WT	031	032	033	034	035	036	038	039	
1) RADAR	*(29)	.00	.00	.00	.00	.00	.00	5.00	8.00	
2) PASV ELTRN	*(14)	.00	.00	.00	.00	.00	.00	.00	8.00	
3) ELCTR OPTC	*(57)	.00	.00	.00	.00	.00	.00	.00	.00	
TOTAL		.00	.00	.00	.00	.00	.00	1.41	3.43	

COMPLETED DATA SHEET

TUESDAY 8/19/1980 17.49

NODE	WEIGHT	SYSTEM SCORES							
		040	041	042	043	044	045	046	047
1 - TAC WAR (WT 100)									
1.1 - PLATFORM (WT 33)									
1.1.1 - ENGINES (WT 63)		0	3	0	0	0	0	0	0
1.1.2 - AIRFRAMES (WT 38)		0	2	0	0	0	0	0	0
1.2 - WEAPONS (WT 28)									
1.2.1 - CASNG/MTRS (WT 34)									
1.2.1.1 - GUNS (WT 41)		0	0	0	0	0	0	0	0
1.2.1.2 - ROCKETS (WT 41)		0	0	0	0	0	0	0	0
1.2.1.3 - RMR/RMBLTS (WT 18)		0	0	0	0	0	0	0	0
1.2.2 - INTERNALS (WT 47)									
1.2.2.1 - WARHD/CONV (WT 46)		0	0	0	0	3	10	0	0
1.2.2.2 - FUZING (WT 21)		0	0	0	0	0	0	0	0
1.2.2.3 - PROFFLTC (WT 38)		0	0	0	0	0	0	0	0
1.2.3 - GUIDANCE (WT 20)									
1.2.3.1 - RADAR (WT 33)		3	5	6	3	0	0	0	1
1.2.3.2 - PASV ELTRN (WT 11)		6	5	6	6	0	0	0	1
1.2.3.3 - ELCTR OPTC (WT 56)		0	0	15	0	0	0	4	2
1.3 - CR I (WT 39)									
1.3.1 - EW (WT 9)		5	4	6	5	0	0	0	1
1.3.2 - NAV (WT 10)									
1.3.2.1 - RADAR (WT 42)		3	5	6	3	0	0	0	1
1.3.2.2 - PASV ELTRN (WT 33)		6	5	6	6	0	0	0	1
1.3.2.3 - ELCTR OPTC (WT 25)		0	0	15	0	0	0	4	2
1.3.3 - COMM (WT 22)		3	5	0	6	0	0	0	0
1.3.4 - SURV (WT 35)									
1.3.4.1 - RADAR (WT 48)		3	5	6	3	0	0	0	1
1.3.4.2 - PASV ELTRN (WT 24)		6	5	6	6	0	0	0	1
1.3.4.3 - ELCTR OPTC (WT 29)		0	0	15	0	0	0	4	2
1.3.5 - TARGETING (WT 20)									
1.3.5.1 - RADAR (WT 29)		3	5	6	3	0	0	0	1
1.3.5.2 - PASV ELTRN (WT 14)		6	5	6	6	0	0	0	1
1.3.5.3 - ELCTR OPTC (WT 57)		0	0	15	0	0	0	4	2

CAS/BI-4

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1 - TAC WAR

FACTOR	WT	040	041	042	043	044	045	046	047
1) PLATFORM	(33)	.00	2.63	.00	.00	.00	.00	.00	.00
2) WEAPONS	(28)	.33	.44	2.19	.33	.56	1.88	.44	.31
3) C3/I	(39)	2.90	3.67	6.89	3.57	.00	.00	.99	1.02
TOTAL		1.23	2.43	3.31	1.49	.16	.52	.51	.49

1.1 - TAC WAR - PLATFORM

FACTOR	WT	040	041	042	043	044	045	046	047
1) ENGINES	*(63)	.00	3.00	.00	.00	.00	.00	.00	.00
2) AIRFRAMES	*(38)	.00	2.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	2.63	.00	.00	.00	.00	.00	.00

1.2 - TAC WAR - WEAPONS

FACTOR	WT	040	041	042	043	044	045	046	047
1) CASNG/MTRS	(34)	.00	.00	.00	.00	.00	.00	.00	.00
2) INTERNALS	(47)	.00	.00	.00	.00	1.21	4.04	.00	.00
3) GUIDANCE	(20)	1.65	2.20	11.04	1.65	.00	.00	2.24	1.56
TOTAL		.33	.44	2.19	.33	.56	1.88	.44	.31

1.2.1 - TAC WAR - WEAPONS - CASNG/MTRS

FACTOR	WT	040	041	042	043	044	045	046	047
1) GUNS	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
2) ROCKETS	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
3) RMB/RMBLTS	*(18)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.2.2 - TAC WAR - WEAPONS - INTERNALS

FACTOR	WT	040	041	042	043	044	045	046	047
1) WARHD/CONV	*(40)	.00	.00	.00	.00	3.00	10.00	.00	.00
2) FUZING	*(21)	.00	.00	.00	.00	.00	.00	.00	.00
3) PROPELNTS	*(38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	1.21	4.04	.00	.00

1.2.3 - TAC WAR - WEAPONS - GUIDANCE

FACTOR	WT	040	041	042	043	044	045	046	047
1) RADAR	*(33)	3.00	5.00	6.00	3.00	.00	.00	.00	1.00
2) PASV ELTRN	*(11)	6.00	5.00	6.00	6.00	.00	.00	.00	1.00
3) ELCTR OPTC	*(56)	.00	.00	15.00	.00	.00	.00	4.00	2.00
TOTAL		1.65	2.20	11.04	1.65	.00	.00	2.24	1.56

1.3 - TAC WAR - C3/I

FACTOR	WT	040	041	042	043	044	045	046	047
1) EW	*(9)	5.00	4.00	6.00	5.00	.00	.00	.00	1.00
2) NAV	(10)	3.25	3.75	8.25	3.25	.00	.00	1.00	1.25
3) COMM	*(22)	3.00	5.00	.00	6.00	.00	.00	.00	.00
4) SURV	(39)	2.86	3.57	8.57	2.86	.00	.00	1.14	1.29
5) TARGETING	(20)	1.71	2.14	11.14	1.71	.00	.00	2.29	1.57
TOTAL		2.90	3.67	6.89	3.57	.00	.00	.99	1.02

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1.3.2 - TAC WAR - C3/I		- NAV							
FACTOR	WT	040	041	042	043	044	045	046	047
1) RADAR	*(42)	3.00	5.00	6.00	3.00	.00	.00	.00	1.00
2) PASV ELTRN	*(33)	6.00	5.00	6.00	6.00	.00	.00	.00	1.00
3) ELCTR OPTC	*(25)	.00	.00	15.00	.00	.00	.00	4.00	2.00
TOTAL		3.25	3.75	8.25	3.25	.00	.00	1.00	1.25

1.3.4 - TAC WAR - C3/I		- SURV							
FACTOR	WT	040	041	042	043	044	045	046	047
1) RADAR	*(48)	3.00	5.00	6.00	3.00	.00	.00	.00	1.00
2) PASV ELTRN	*(24)	6.00	5.00	6.00	6.00	.00	.00	.00	1.00
3) ELCTR OPTC	*(29)	.00	.00	15.00	.00	.00	.00	4.00	2.00
TOTAL		2.86	3.57	8.57	2.86	.00	.00	1.14	1.29

1.3.5 - TAC WAR - C3/I		- TARGETING							
FACTOR	WT	040	041	042	043	044	045	046	047
1) RADAR	*(29)	3.00	5.00	6.00	3.00	.00	.00	.00	1.00
2) PASV ELTRN	*(14)	6.00	5.00	6.00	6.00	.00	.00	.00	1.00
3) ELCTR OPTC	*(57)	.00	.00	15.00	.00	.00	.00	4.00	2.00
TOTAL		1.71	2.14	11.14	1.71	.00	.00	2.29	1.57

COMPLETED DATA SHEET

TUESDAY 8/19/1980 17.58

NODE	WEIGHT	SYSTEM SCORES							
		048	049	050	051	098	053	054	055
1	- TAC WAR (WT 100)								
1.1	- PLATFORM (WT 33)								
1.1.1	- ENGINES (WT 63)	0	0	0	8	0	0	0	0
1.1.2	- AIRFRAMES (WT 38)	0	0	0	0	1	0	0	0
1.2	- WEAPONS (WT 28)								
1.2.1	- CASNG/MTRS (WT 34)								
1.2.1.1	- GUNS (WT 41)	0	0	0	2	0	0	0	0
1.2.1.2	- ROCKETS (WT 41)	0	0	0	2	0	0	0	0
1.2.1.3	- BMR/RMHTS (WT 18)	0	0	0	2	0	0	0	0
1.2.2	- INTERNALS (WT 47)								
1.2.2.1	- WARHD/CONV (WT 40)	0	0	0	12	0	10	0	0
1.2.2.2	- FUZING (WT 21)	8	0	0	0	0	0	35	35
1.2.2.3	- PROPELNTS (WT 38)	0	0	0	0	0	0	0	0
1.2.3	- GUIDANCE (WT 20)								
1.2.3.1	- RADAR (WT 33)	0	2	4	0	0	0	11	19
1.2.3.2	- PASV ELTRN (WT 11)	0	2	4	0	0	0	11	19
1.2.3.3	- ELCTR OFTC (WT 58)	0	0	9	0	0	0	0	0
1.3	- C3/I (WT 39)								
1.3.1	- EW (WT 9)	0	2	3	0	0	0	10	17
1.3.2	- NAV (WT 10)								
1.3.2.1	- RADAR (WT 42)	0	2	4	0	0	0	11	19
1.3.2.2	- PASV ELTRN (WT 33)	0	2	4	0	0	0	11	19
1.3.2.3	- ELCTR OFTC (WT 25)	0	0	9	0	0	0	0	0
1.3.3	- COMM (WT 22)	0	0	0	0	0	0	12	20
1.3.4	- SURV (WT 39)								
1.3.4.1	- RADAR (WT 48)	0	2	4	0	0	0	11	19
1.3.4.2	- PASV ELTRN (WT 24)	0	2	4	0	0	0	11	19
1.3.4.3	- ELCTR OFTC (WT 29)	0	0	9	0	0	0	0	0
1.3.5	- TARGETING (WT 20)								
1.3.5.1	- RADAR (WT 29)	0	2	4	0	0	0	11	19
1.3.5.2	- PASV ELTRN (WT 14)	0	2	4	0	0	0	11	19
1.3.5.3	- ELCTR OFTC (WT 57)	0	0	9	0	0	0	0	0

CAS/BI-5

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1 - TAC WAR

FACTOR	WT	048	049	050	051	098	053	054	055
1) PLATFORM (33)		.00	.00	.00	5.00	.38	.00	.00	.00
2) WEAPONS (28)		.79	.17	1.35	2.93	.00	1.88	4.42	5.12
3) C3/I (39)		.00	1.05	4.26	.00	.00	.00	8.40	14.32
TOTAL		.22	.44	2.04	2.46	.12	.52	4.53	7.04

1.1 - TAC WAR - PLATFORM

FACTOR	WT	048	049	050	051	098	053	054	055
1) ENGINES *(63)		.00	.00	.00	8.00	.00	.00	.00	.00
2) AIRFRAMES *(38)		.00	.00	.00	.00	1.00	.00	.00	.00
TOTAL		.00	.00	.00	5.00	.38	.00	.00	.00

1.2 - TAC WAR - WEAPONS

FACTOR	WT	048	049	050	051	098	053	054	055
1) CASNG/MTRS (34)		.00	.00	.00	2.00	.00	.00	.00	.00
2) INTERNALS (47)		1.70	.00	.00	4.85	.00	4.04	7.45	7.45
3) GUIDANCE (20)		.00	.88	6.80	.00	.00	.00	4.84	8.36
TOTAL		.79	.17	1.35	2.93	.00	1.88	4.42	5.12

1.2.1 - TAC WAR - WEAPONS - CASNG/MTRS

FACTOR	WT	048	049	050	051	098	053	054	055
1) GUNS *(41)		.00	.00	.00	2.00	.00	.00	.00	.00
2) ROCKETS *(41)		.00	.00	.00	2.00	.00	.00	.00	.00
3) BMR/BMRITS *(18)		.00	.00	.00	2.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	2.00	.00	.00	.00	.00

1.2.2 - TAC WAR - WEAPONS - INTERNALS

FACTOR	WT	048	049	050	051	098	053	054	055
1) WARHD/CONV *(40)		.00	.00	.00	12.00	.00	10.00	.00	.00
2) FUZING *(21)		8.00	.00	.00	.00	.00	.00	35.00	35.00
3) PROPELNTS *(38)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		1.70	.00	.00	4.85	.00	4.04	7.45	7.45

1.2.3 - TAC WAR - WEAPONS - GUIDANCE

FACTOR	WT	048	049	050	051	098	053	054	055
1) RADAR *(33)		.00	2.00	4.00	.00	.00	.00	11.00	19.00
2) PASV FLTRN *(11)		.00	2.00	4.00	.00	.00	.00	11.00	19.00
3) ELCTR OPTC *(56)		.00	.00	9.00	.00	.00	.00	.00	.00
TOTAL		.00	.88	6.80	.00	.00	.00	4.84	8.36

1.3 - TAC WAR - C3/I

FACTOR	WT	048	049	050	051	098	053	054	055
1) EW *(9)		.00	2.00	3.00	.00	.00	.00	10.00	17.00
2) NAV *(10)		.00	1.50	5.25	.00	.00	.00	8.25	14.25
3) COMM *(22)		.00	.00	.00	.00	.00	.00	12.00	20.00
4) SURV (39)		.00	1.43	5.43	.00	.00	.00	7.86	13.57
5) TARGETING (20)		.00	.88	6.86	.00	.00	.00	4.71	8.14
TOTAL		.00	1.05	4.26	.00	.00	.00	8.40	14.32

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1.3.2 - TAC WAR		- C3/I	- NAV						
FACTOR	WT	048	049	050	051	098	053	054	055
1) RADAR *(42)	.00	.00	2.00	4.00	.00	.00	.00	11.00	19.00
2) PASV ELTRN *(33)	.00	.00	2.00	4.00	.00	.00	.00	11.00	19.00
3) ELCTR OPTC *(25)	.00	.00	.00	9.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	1.50	5.25	.00	.00	.00	8.25	14.25

1.3.4 - TAC WAR		- C3/I	- SURV						
FACTOR	WT	048	049	050	051	098	053	054	055
1) RADAR *(48)	.00	.00	2.00	4.00	.00	.00	.00	11.00	19.00
2) PASV ELTRN *(24)	.00	.00	2.00	4.00	.00	.00	.00	11.00	19.00
3) ELCTR OPTC *(29)	.00	.00	.00	9.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	1.43	5.43	.00	.00	.00	7.86	13.57

1.3.5 - TAC WAR		- C3/I	- TARGETING						
FACTOR	WT	048	049	050	051	098	053	054	055
1) RADAR *(29)	.00	.00	2.00	4.00	.00	.00	.00	11.00	19.00
2) PASV ELTRN *(14)	.00	.00	2.00	4.00	.00	.00	.00	11.00	19.00
3) ELCTR OPTC *(57)	.00	.00	.00	9.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.86	6.66	.00	.00	.00	4.71	8.14

COMPLETED DATA SHEET

TUESDAY 8/19/1980 18.19

NODE	WEIGHT	SYSTEM SCORES							
		099	057	062	063	065	072	075	082
1	- TAC WAR (WT 100)								
1.1	- PLATFORM (WT 33)								
1.1.1	- ENGINES (WT 63)	0	0	0	0	0	6	0	0
1.1.2	- AIRFRAMES (WT 38)	0	0	5	0	0	14	0	0
1.2	- WEAPONS (WT 28)								
1.2.1	- CASNG/MTRS (WT 34)								
1.2.1.1	- GUNS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.2	- ROCKETS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.3	- BMR/BMLTS (WT 18)	0	0	0	0	0	0	0	0
1.2.2	- INTERNALS (WT 47)								
1.2.2.1	- WARHD/CONV (WT 40)	24	8	0	0	0	0	0	0
1.2.2.2	- FUZING (WT 21)	0	0	0	0	12	0	0	0
1.2.2.3	- PROPELNTS (WT 38)	32	0	0	0	0	0	0	14
1.2.3	- GUIDANCE (WT 20)								
1.2.3.1	- RADAR (WT 33)	0	0	12	1	3	0	2	0
1.2.3.2	- PASV ELTRN (WT 11)	0	0	12	1	3	0	2	0
1.2.3.3	- ELCTR OFTC (WT 56)	0	0	28	2	0	0	0	0
1.3	- C3 I (WT 39)								
1.3.1	- EW (WT 9)	0	0	11	1	3	0	2	0
1.3.2	- NAV (WT 10)								
1.3.2.1	- RADAR (WT 42)	0	0	12	1	3	0	2	0
1.3.2.2	- PASV ELTRN (WT 33)	0	0	12	1	3	0	2	0
1.3.2.3	- ELCTR OFTC (WT 25)	0	0	28	2	0	0	0	0
1.3.3	- COMM (WT 22)	0	0	13	0	3	0	2	0
1.3.4	- SURV (WT 39)								
1.3.4.1	- RADAR (WT 48)	0	0	12	1	3	0	2	0
1.3.4.2	- PASV ELTRN (WT 24)	0	0	12	1	3	0	2	0
1.3.4.3	- ELCTR OFTC (WT 29)	0	0	28	2	0	0	0	0
1.3.5	- TARGETING (WT 20)								
1.3.5.1	- RADAR (WT 29)	0	0	12	1	3	0	2	0
1.3.5.2	- PASV ELTRN (WT 14)	0	0	12	1	3	0	2	0
1.3.5.3	- ELCTR OFTC (WT 57)	0	0	28	2	0	0	0	0

CAS/BI-6

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1 - TAC WAR

FACTOR	WT	099	057	062	063	065	072	075	082
1) PLATFORM	(33)	.00	.00	1.88	.00	.00	9.00	.00	.00
2) WEAPONS	(28)	10.22	1.50	4.15	.31	1.45	.00	.17	2.50
3) C3/I	(39)	.00	.00	16.11	1.02	2.25	.00	1.50	.00
TOTAL		2.84	.42	8.10	.49	1.29	2.97	.64	.69

1.1 - TAC WAR - PLATFORM

FACTOR	WT	099	057	062	063	065	072	075	082
1) ENGINES	*(63)	.00	.00	.00	.00	.00	6.00	.00	.00
2) AIRFRAMES	*(38)	.00	.00	5.00	.00	.00	14.00	.00	.00
TOTAL		.00	.00	1.88	.00	.00	9.00	.00	.00

1.2 - TAC WAR - WEAPONS

FACTOR	WT	099	057	062	063	065	072	075	082
1) CASNG MIRS	(34)	.00	.00	.00	.00	.00	.00	.00	.00
2) INTERNALS	(47)	21.96	3.23	.00	.00	2.55	.00	.00	5.36
3) GUIDANCE	(20)	.00	.00	20.96	1.56	1.32	.00	.88	.00
TOTAL		10.22	1.50	4.15	.31	1.45	.00	.17	2.50

1.2.1 - TAC WAR - WEAPONS - CASNG MIRS

FACTOR	WT	099	057	062	063	065	072	075	082
1) GUN	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
2) ROCKETS	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
3) BHE RBMLTS	*(18)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.2.2 - TAC WAR - WEAPONS - INTERNALS

FACTOR	WT	099	057	062	063	065	072	075	082
1) WARHD CONV	*(40)	24.00	8.00	.00	.00	.00	.00	.00	.00
2) FUZING	*(21)	.00	.00	.00	.00	12.00	.00	.00	.00
3) PROFFINTS	*(38)	32.00	.00	.00	.00	.00	.00	.00	14.00
TOTAL		21.96	3.23	.00	.00	2.55	.00	.00	5.36

1.2.3 - TAC WAR - WEAPONS - GUIDANCE

FACTOR	WT	099	057	062	063	065	072	075	082
1) RADAR	*(33)	.00	.00	12.00	1.00	3.00	.00	2.00	.00
2) PASS ELTRN	*(11)	.00	.00	12.00	1.00	3.00	.00	2.00	.00
3) ELECTR OPTC	*(56)	.00	.00	28.00	2.00	.00	.00	.00	.00
TOTAL		.00	.00	20.96	1.56	1.32	.00	.88	.00

1.3 - TAC WAR - C3/I

FACTOR	WT	099	057	062	063	065	072	075	082
1) EW	*(9)	.00	.00	11.00	1.00	3.00	.00	2.00	.00
2) NAV	(10)	.00	.00	16.00	1.25	2.25	.00	1.50	.00
3) COMM	*(21)	.00	.00	13.00	.00	3.00	.00	2.00	.00
4) SURV	(39)	.00	.00	16.57	1.29	2.14	.00	1.43	.00
5) TARGETING	(20)	.00	.00	21.14	1.57	1.29	.00	.86	.00
TOTAL		.00	.00	16.11	1.02	2.25	.00	1.50	.00

CAS/RI-6 TUESDAY 8/19/1980 18 19

1.3.2	-	TAC WAR	-	C3/I	-	NAV						
		FACTOR		WT		099	057	060	063	065	070	075
1)		RADAR	*	42		1.00	1.00	12.00	1.00	3.00	1.00	2.00
2)		PASV ELTRN	*	33		1.00	1.00	12.00	1.00	3.00	1.00	2.00
3)		ELECTR OFTC	*	25		1.00	1.00	28.00	2.00	1.00	1.00	1.00
		TOTAL				1.00	1.00	16.00	1.25	2.25	1.00	1.50

1.3.4	-	TAC WAR	-	C3 I	-	SURV						
		FACTOR		WT		099	057	060	063	065	070	075
1)		RADAR	*	48		1.00	1.00	12.00	1.00	3.00	1.00	2.00
2)		PASV ELTRN	*	24		1.00	1.00	12.00	1.00	3.00	1.00	2.00
3)		ELECTR OFTC	*	25		1.00	1.00	28.00	2.00	1.00	1.00	1.00
		TOTAL				1.00	1.00	16.00	1.25	2.25	1.00	1.50

1.3.5	-	TAC WAR	-	C3 I	-	TARGETING						
		FACTOR		WT		099	057	060	063	065	070	075
1)		RADAR	*	1		1.00	1.00	12.00	1.00	3.00	1.00	2.00
2)		PASV ELTRN	*	14		1.00	1.00	12.00	1.00	3.00	1.00	2.00
3)		ELECTR OFTC	*	50		1.00	1.00	28.00	2.00	1.00	1.00	1.00
		TOTAL				1.00	1.00	16.00	1.25	2.25	1.00	1.50

COMPLETED DATA SHEET

TUESDAY 8/19/1980 18 23

NODE	WEIGHT	SYSTEM SCORES							
		080	081	073	083	084	077	064	077
1	- TAC WAR (WT 100)								
1.1	- PLATFORM (WT 33)								
1.1.1	- ENGINES (WT 63)	0	0	0	0	0	0	0	0
1.1.2	- AIRFRAMES (WT 38)	0	0	0	0	0	0	0	0
1.2	- WEAPONS (WT 28)								
1.2.1	- CASNG/MTRS (WT 34)								
1.2.1.1	- GUNS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.2	- ROCKETS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.3	- RMH/RMRLTS (WT 18)	0	0	0	0	0	0	0	0
1.2.2	- INTERNALS (WT 47)								
1.2.2.1	- WARHD/CONV (WT 40)	0	0	0	0	0	0	0	0
1.2.2.2	- FUDING (WT 21)	0	0	0	0	0	0	0	0
1.2.2.3	- PROFELNTR (WT 36)	3	15	0	0	0	0	0	0
1.2.3	- GUIDANCE (WT 20)								
1.2.3.1	- RADAR (WT 33)	0	0	0	0	0	0	0	0
1.2.3.2	- PASV ELTRN (WT 11)	0	0	0	0	0	0	0	0
1.2.3.3	- ELCR OFTC (WT 57)	0	0	0	0	0	0	0	0
1.3	- CS I (WT 39)								
1.3.1	- EW (WT 9)	0	0	0	0	0	0	0	0
1.3.2	- NAV (WT 10)								
1.3.2.1	- RADAR (WT 42)	0	0	0	0	0	0	0	0
1.3.2.2	- PASV ELTRN (WT 33)	0	0	0	0	0	0	0	0
1.3.2.3	- ELCR OFTC (WT 25)	0	0	0	0	0	0	0	0
1.3.3	- COMM (WT 27)	0	0	0	0	0	0	0	0
1.3.4	- SHLV (WT 34)								
1.3.4.1	- RADAR (WT 46)	0	0	0	0	0	0	0	0
1.3.4.2	- PASV ELTRN (WT 24)	0	0	0	0	0	0	0	0
1.3.4.3	- ELCR OFTC (WT 29)	0	0	0	0	0	0	0	0
1.3.5	- TARGETING (WT 20)								
1.3.5.1	- RADAR (WT 29)	0	0	0	0	0	0	0	0
1.3.5.2	- PASV ELTRN (WT 14)	0	0	0	0	0	0	0	0
1.3.5.3	- ELCR OFTC (WT 57)	0	0	0	0	0	0	0	0

CAS/BI-7 TUESDAY 8/19/1980 18:22

1 - TAC WAR									
FACTOR	WT	080	081	073	083	084	027	064	077
1) PLATFORM	(33)	.00	.00	.00	.00	.00	.00	.00	.00
2) WEAPONS	(28)	6.42	3.21	.00	.00	.00	.00	.00	.00
3) C3/I	(39)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		1.78	.89	.00	.00	.00	.00	.00	.00
1.1 - TAC WAR - PLATFORM									
FACTOR	WT	080	081	073	083	084	027	064	077
1) ENGINES	*(63)	.00	.00	.00	.00	.00	.00	.00	.00
2) AIRFRAMES	*(38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
1.1.1 - TAC WAR - WEAPONS									
FACTOR	WT	080	081	073	083	084	027	064	077
1) CASNG/MTRS	(34)	.00	.00	.00	.00	.00	.00	.00	.00
2) INTERNALS	(47)	13.79	6.89	.00	.00	.00	.00	.00	.00
3) GUIDANCE	(26)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		6.42	3.21	.00	.00	.00	.00	.00	.00
1.1.1.1 - TAC WAR - WEAPONS - CASNG/MTRS									
FACTOR	WT	080	081	073	083	084	027	064	077
1) GUNS	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
2) ROCKETS	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
3) RMFBRLTS	*(18)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
1.1.1.2 - TAC WAR - WEAPONS - INTERNALS									
FACTOR	WT	080	081	073	083	084	027	064	077
1) WARHD/CONV	*(40)	.00	.00	.00	.00	.00	.00	.00	.00
2) FUZING	*(21)	.00	.00	.00	.00	.00	.00	.00	.00
3) PROPELNTS	*(38)	36.00	18.00	.00	.00	.00	.00	.00	.00
TOTAL		13.79	6.89	.00	.00	.00	.00	.00	.00
1.1.1.3 - TAC WAR - WEAPONS - GUIDANCE									
FACTOR	WT	080	081	073	083	084	027	064	077
1) RADAR	*(33)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN	*(11)	.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC	*(56)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
1.1.3 - TAC WAR - C3/I									
FACTOR	WT	080	081	073	083	084	027	064	077
1) EW	*(9)	.00	.00	.00	.00	.00	.00	.00	.00
2) NAV	(10)	.00	.00	.00	.00	.00	.00	.00	.00
3) COMM	*(22)	.00	.00	.00	.00	.00	.00	.00	.00
4) SIGAL	(39)	.00	.00	.00	.00	.00	.00	.00	.00
5) TARGETING	(20)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

CAS/BI-7 TUESDAY 8/19/1980 18 22

1.3.2 - TAC WAR - C3/I		- NAV							
FACTOR	WT	080	081	073	083	084	027	064	077
1) RADAR	*(42)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN	*(33)	.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC	*(25)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.4 - TAC WAR - C3/I		- SURV							
FACTOR	WT	080	081	073	083	084	027	064	077
1) RADAR	*(48)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN	*(24)	.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC	*(29)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.5 - TAC WAR - C3/I		- TARGETING							
FACTOR	WT	080	081	073	083	084	027	064	077
1) RADAR	*(29)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN	*(14)	.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC	*(57)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

APPENDIX C
THEATER NUCLEAR STRUCTURE AND DATA

COMPLETED DATA SHEET

WEDNESDAY 8/26/1980 9:32

NODE	WEIGHT	SYSTEM SCORES							
		001	002	003	005	007	008	010	012
1	- THTF NUC (WT: 100)								
1.1	- PLATFORM (WT: 30)								
1.1.1	- ENGINES (WT: 63)	8	2	8	6	5	5	5	12
1.1.2	- AIRFRAMES (WT: 38)	4	0	20	3	0	10	13	0
1.2	- WEAPONS (WT: 35)								
1.2.1	- CASING/MTRC (WT: 24)								
1.2.1.1	- GUNS (WT: 41)	0	0	11	0	0	0	0	0
1.2.1.2	- ROCKETS (WT: 41)	1	0	30	0	0	0	0	2
1.2.1.3	- HMR/EMPTS (WT: 18)	1	0	30	0	0	0	0	2
1.2.2	- INTERNALS (WT: 33)								
1.2.2.1	- WARHD CONV (WT: 40)	3	0	10	0	0	0	10	3
1.2.2.2	- FUELING (WT: 21)	0	0	0	0	0	1	0	0
1.2.2.3	- PROPELLNT (WT: 38)	0	0	0	0	0	0	0	0
1.2.3	- GUIDANCE (WT: 14)								
1.2.3.1	- RADAR (WT: 35)	0	0	0	0	0	0	0	0
1.2.3.2	- PASSV ELTRN (WT: 11)	0	0	0	0	0	0	0	0
1.2.3.3	- ELCTR OPTC (WT: 5)	0	0	0	0	0	0	0	0
1.2.4	- NUC WEAPON (WT: 28)								
1.2.4.1	- ANGR DEVL (WT: 20)	0	0	0	0	0	0	0	0
1.2.4.2	- TELLUR (WT: 47)								
1.2.4.2.1	- INFLECTION (WT: 11)	0	0	0	0	0	5	0	0
1.2.4.2.2	- HYDRODYNM (WT: 32)	0	0	0	0	0	0	0	0
1.2.4.2.3	- NUC TECTON (WT: 53)	0	0	0	0	0	0	0	0
1.2.4.3	- ST NUC MAT (WT: 7)	0	0	0	0	0	0	0	0
1.2.4.4	- WEAPONTRN (WT: 14)	0	0	0	0	0	0	0	0
1.2.4.5	- EAR ADAPTER (WT: 14)	0	0	0	6	1	0	0	0
1.3	- CS-1 (WT: 35)								
1.3.1	- EL (WT: 9)	0	0	0	0	0	0	0	0
1.3.2	- NAV (WT: 100)								
1.3.2.1	- RADAR (WT: 42)	0	0	0	0	0	0	0	0
1.3.2.2	- PASSV ELTRN (WT: 33)	0	0	0	0	0	0	0	0
1.3.2.3	- ELCTR OPTC (WT: 25)	0	0	0	0	0	0	0	0
1.3.3	- COMM (WT: 22)	0	0	0	0	0	0	0	0
1.3.4	- SURV (WT: 39)								
1.3.4.1	- RADAR (WT: 48)	0	0	0	0	0	0	0	0
1.3.4.2	- PASSV ELTRN (WT: 24)	0	0	0	0	0	0	0	0
1.3.4.3	- ELCTR OPTC (WT: 29)	0	0	0	0	0	0	0	0
1.3.5	- TARGETING (WT: 20)								
1.3.5.1	- RADAR (WT: 29)	0	0	0	0	0	0	0	0
1.3.5.2	- PASSV ELTRN (WT: 14)	0	0	0	0	0	0	0	0
1.3.5.3	- ELCTR OPTC (WT: 57)	0	0	0	0	0	0	0	0

THTR NUC-1

WEDNESDAY 8/26/1980 9:31

1 - THTR NUC									
FACTOR	WT	001	002	003	005	007	008	010	012
1) PLATFORM	(30)	6.50	1.25	12.50	4.88	3.13	6.88	8.00	7.50
2) WEAPONS	(35)	.55	.00	6.70	.23	.70	.19	1.64	.69
3) C3/I	(35)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		2.12	.37	6.05	1.53	1.17	2.11	2.95	2.47

1.1 - THTR NUC - PLATFORM									
FACTOR	WT	001	002	003	005	007	008	010	012
1) ENGINE	* (63)	8.00	2.00	8.00	6.00	5.00	5.00	5.00	12.00
2) AIRFRAME	* (38)	4.00	.00	20.00	3.00	.00	10.00	13.00	.00
TOTAL		6.50	1.25	12.50	4.88	3.13	6.88	8.00	7.50

1.2 - THTR NUC - WEAPONS									
FACTOR	WT	001	002	003	005	007	008	010	012
1) CANNON/ART	(24)	.55	.00	22.18	.00	.00	.00	.00	1.18
2) INTERNAL	(33)	1.21	.00	4.04	.00	.00	.21	4.04	1.21
3) GUIDANCE	(14)	.00	.00	.00	.00	.00	.00	.00	.00
4) SUB WEAPON	(28)	.00	.00	.00	.82	2.45	.41	1.05	.00
TOTAL		.55	.00	6.70	.23	.70	.19	1.64	.69

1.2.1 - THTR NUC - WEAPONS - CASUALTIES									
FACTOR	WT	001	002	003	005	007	008	010	012
1) GUN	* (41)	.00	.00	11.00	.00	.00	.00	.00	.00
2) ROCKET	* (41)	1.00	.00	30.00	.00	.00	.00	.00	2.00
3) BMT BMT	* (10)	1.00	.00	30.00	.00	.00	.00	.00	2.00
TOTAL		.55	.00	22.18	.00	.00	.00	.00	1.18

1.2.2 - THTR NUC - WEAPONS - INTERNALS									
FACTOR	WT	001	002	003	005	007	008	010	012
1) WAREHOUSE	* (40)	3.00	.00	10.00	.00	.00	.00	10.00	3.00
2) FLIGHT	* (21)	.00	.00	.00	.00	.00	1.00	.00	.00
3) PROPELLANT	* (38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		1.21	.00	4.04	.00	.00	.21	4.04	1.21

1.2.3 - THTR NUC - WEAPONS - GUIDANCE									
FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR	* (33)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASS FILTER	* (11)	.00	.00	.00	.00	.00	.00	.00	.00
3) ELECT OPTIC	* (56)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.2.4 - THTR NUC - WEAPONS - NUC WEAPON									
FACTOR	WT	001	002	003	005	007	008	010	012
1) ANAL DEVEL	* (20)	.00	.00	.00	.00	.00	.00	.00	.00
2) TESTING	(43)	.00	.00	.00	.00	.00	.95	2.42	.00
3) SP NUC MAT	* (7)	.00	.00	.00	.00	.00	.00	.00	.00
4) WEAPONZATN	* (16)	.00	.00	.00	.00	.00	.00	.00	.00
5) FAB/ASSEMB	* (14)	.00	.00	.00	6.00	18.00	.00	.00	.00
TOTAL		.00	.00	.00	.82	2.45	.41	1.05	.00

THTR NUC-1

WEDNESDAY 8/20/1980 9:31

1.2.4.2 - THTR NUC - WEAPONS		- NUC WEAPON - TESTING							
FACTOR	WT	001	002	003	005	007	008	010	012
1) INSPECTION *(11)		.00	.00	.00	.00	.00	.00	.00	.00
2) HYDRODYNAM *(37)		.00	.00	.00	.00	.00	.00	.00	.00
3) NUC TESTING *(53)		.00	.00	.00	.00	.00	.95	2.42	.00
TOTAL		.00	.00	.00	.00	.00			

1.3 - THTR NUC - C3/I									
FACTOR	WT	001	002	003	005	007	008	010	012
1) EW *(9)		.00	.00	.00	.00	.00	.00	.00	.00
2) NAV *(10)		.00	.00	.00	.00	.00	.00	.00	.00
3) COMM *(22)		.00	.00	.00	.00	.00	.00	.00	.00
4) SURV *(39)		.00	.00	.00	.00	.00	.00	.00	.00
5) TARGETING *(20)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00			

1.3.2 - THTR NUC - C3/I		- NAV							
FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR *(42)		.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN *(33)		.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC *(25)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00			

1.3.4 - THTR NUC - C3/I		- SURV							
FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR *(48)		.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN *(24)		.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC *(29)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00			

1.3.5 - THTR NUC - C3/I		- TARGETING							
FACTOR	WT	001	002	003	005	007	008	010	012
1) RADAR *(29)		.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN *(14)		.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC *(57)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00			

COMPLETED DATA SHEET

WEDNESDAY 8/20/1980 11 50

NODE	WEIGHT	SYSTEM SCORES							
		016	017	022	024	025	026	028	030
1	- THTE NUC (WT 100)								
1.1	- PLATFORM (WT 30)								
1.1.1	- ENGINES (WT 63)	2	6	0	0	10	0	0	0
1.1.2	- AIRFRAMES (WT 38)	5	4	2	0	10	0	0	0
1.2	- WEAPONS (WT 35)								
1.2.1	- CASNG/MTRS (WT 24)								
1.2.1.1	- GUNS (WT 41)	11	2	11	0	58	0	0	0
1.2.1.2	- ROCKETS (WT 41)	3	10	1	0	0	0	0	0
1.2.1.3	- BMR/MBRLTS (WT 18)	3	10	1	0	0	0	0	0
1.2.2	- INTERNALS (WT 33)								
1.2.2.1	- WARMTH/ENV (WT 40)	0	0	8	0	0	0	0	0
1.2.2.2	- FUZING (WT 21)	1	0	1	3	0	0	0	0
1.2.2.3	- PERCEPNTS (WT 38)	0	0	0	0	0	0	0	0
1.2.3	- GUIDANCE (WT 14)								
1.2.3.1	- RADAR (WT 35)	0	0	0	11	0	0	0	0
1.2.3.2	- PASV ELTRN (WT 11)	0	0	0	12	0	0	0	0
1.2.3.3	- ELCTR OPTC (WT 57)	0	0	0	0	0	0	0	0
1.2.4	- NUC WEAPNS (WT 24)								
1.2.4.1	- ANAL DEPT (WT 24)	0	0	0	0	0	0	0	0
1.2.4.2	- TESTING (WT 47)								
1.2.4.2.1	- INSPECTION (WT 11)	0	0	0	0	0	0	0	0
1.2.4.2.2	- HYDROLYNAR (WT 30)	0	0	0	0	0	0	0	0
1.2.4.2.3	- NUC TESTING (WT 59)	0	0	0	0	0	0	0	0
1.2.4.3	- OF NUC MAT (WT 7)	0	0	0	0	0	0	0	0
1.2.4.4	- WEAPONDATA (WT 12)	0	0	0	0	0	0	0	0
1.2.4.5	- LAB ACCEPT (WT 14)	0	0	12	0	0	0	0	0
1.3	- FW (WT 11)								
1.3.1	- FW (WT 9)	0	0	0	10	0	0	0	0
1.3.2	- NAV (WT 10)								
1.3.2.1	- RADAR (WT 40)	0	0	0	17	0	0	0	0
1.3.2.2	- PASV ELTRN (WT 33)	0	0	0	17	0	0	0	0
1.3.2.3	- ELCTR OPTC (WT 29)	0	0	0	0	0	0	39	0
1.3.3	- COMM (WT 22)	0	0	0	19	0	0	0	0
1.3.4	- SURV (WT 39)								
1.3.4.1	- RADAR (WT 49)	0	0	0	17	0	0	0	0
1.3.4.2	- PASV ELTRN (WT 24)	0	0	0	17	0	0	0	0
1.3.4.3	- ELCTR OPTC (WT 29)	0	0	0	0	0	0	39	0
1.3.5	- TARGETING (WT 20)								
1.3.5.1	- RADAR (WT 29)	0	0	0	17	0	0	0	0
1.3.5.2	- PASV ELTRN (WT 14)	0	0	0	17	0	0	0	0
1.3.5.3	- ELCTR OPTC (WT 57)	0	0	0	0	0	0	39	0

THTR NUC-2

WEDNESDAY 8/20/1980 11:50

1 - THTR NUC

FACTOR	WT	016	017	022	024	025	026	028	030
1) PLATFORM	(30)	3.13	5.25	.75	1.00	10.00	.00	.00	.00
2) WEAPONS	(35)	1.59	1.62	2.85	1.27	5.76	.20	3.10	.90
3) C3/I	(35)	.00	.00	.00	13.04	.00	.00	9.70	.00
TOTAL		1.48	2.12	1.22	5.06	4.98	.07	4.51	.30

1.1 - THTR NUC - PLATFORM

FACTOR	WT	016	017	022	024	025	026	028	030
1) ENGINES	*(63)	2.00	6.00	.00	.00	10.00	.00	.00	.00
2) AIRFRAMES	*(38)	5.00	4.00	2.00	.00	10.00	.00	.00	.00
TOTAL		3.13	5.25	.75	1.00	10.00	.00	.00	.00

1.2 - THTR NUC - WEAPONS

FACTOR	WT	016	017	022	024	025	026	028	030
1) CASNG/MTRE	(24)	6.25	6.71	5.17	.00	23.85	.82	.00	2.94
2) INTERNALS	(33)	.00	.00	3.45	.64	.00	.00	.00	.00
3) GUIDANCE	(14)	.00	.00	.00	7.48	.00	.00	21.84	.00
4) NUC WEAPON	(28)	.00	.00	1.64	.00	.00	.00	.00	.68
TOTAL		1.59	1.62	2.85	1.27	5.76	.20	3.10	.90

1.2.1 - THTR NUC - WEAPONS - CASNG/MTRE

FACTOR	WT	016	017	022	024	025	026	028	030
1) GUNS	*(41)	11.00	2.00	11.00	.00	58.00	2.00	.00	.00
2) ROCKETS	*(41)	3.00	10.00	1.00	.00	.00	.00	.00	5.00
3) RME IMPLTS	*(12)	3.00	10.00	1.00	.00	.00	.00	.00	5.00
TOTAL		6.25	6.71	5.17	.00	23.85	.82	.00	2.94

1.2.2 - THTR NUC - WEAPONS - INTERNALS

FACTOR	WT	016	017	022	024	025	026	028	030
1) WARHT CONV	*(40)	.00	.00	8.00	.00	.00	.00	.00	.00
2) FUZING	*(21)	1.00	.00	1.00	3.00	.00	.00	.00	.00
3) PROPELNTS	*(38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.21	.00	3.45	.64	.00	.00	.00	.00

1.2.3 - THTR NUC - WEAPONS - GUIDANCE

FACTOR	WT	016	017	022	024	025	026	028	030
1) RADAR	*(33)	.00	.00	.00	17.00	.00	.00	.00	.00
2) PASV ELTRN	*(11)	.00	.00	.00	17.00	.00	.00	.00	.00
3) ELCTR OPTC	*(56)	.00	.00	.00	.00	.00	.00	39.00	.00
TOTAL		.00	.00	.00	7.48	.00	.00	21.84	.00

1.2.4 - THTR NUC - WEAPONS - NUC WEAPON

FACTOR	WT	016	017	022	024	025	026	028	030
1) ANAL DEVEL	*(20)	.00	.00	.00	.00	.00	.00	.00	.00
2) TESTING	(43)	.00	.00	.00	.00	.00	.00	.00	.00
3) SF NUC MAT	*(7)	.00	.00	.00	.00	.00	.00	.00	.00
4) WEAPONZATN	*(16)	.00	.00	.00	.00	.00	.00	.00	.00
5) FAB/ASSEMB	*(14)	.00	.00	12.00	.00	.00	.00	.00	5.00
TOTAL		.00	.00	1.64	.00	.00	.00	.00	.68

THTR NUC-2 WEDNESDAY 8/20/1980 11:50

1.2.4.2 - THTR NUC - WEAPONS - NUC WEAPON - TESTING

FACTOR	WT	016	017	022	024	025	026	028	030
1) INSPECTION * (11)		.00	.00	.00	.00	.00	.00	.00	.00
2) HYDRODYNAM * (37)		.00	.00	.00	.00	.00	.00	.00	.00
3) NUC TESTING * (53)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.2 - THTR NUC - C3/I

FACTOR	WT	016	017	022	024	025	026	028	030
1) FU * (9)		.00	.00	.00	15.00	.00	.00	.00	.00
2) NAV * (10)		.00	.00	.00	12.75	.00	.00	9.75	.00
3) COM * (22)		.00	.00	.00	19.00	.00	.00	.00	.00
4) C3/I * (39)		.00	.00	.00	12.14	.00	.00	11.14	.00
5) TARGETING * (20)		.00	.00	.00	7.29	.00	.00	22.29	.00
TOTAL		.00	.00	.00	13.64	.00	.00	9.75	.00

1.2 - THTR NUC - C3/I - NAV

FACTOR	WT	016	017	022	024	025	026	028	030
1) INSPECTION * (4)		.00	.00	.00	17.00	.00	.00	.00	.00
2) HYDRODYNAM * (33)		.00	.00	.00	17.00	.00	.00	.00	.00
3) NUC TESTING * (25)		.00	.00	.00	.00	.00	.00	39.00	.00
TOTAL		.00	.00	.00	17.00	.00	.00	39.00	.00

1.2.4 - THTR NUC - C3/I - SURV

FACTOR	WT	016	017	022	024	025	026	028	030
1) INSPECTION * (4)		.00	.00	.00	17.00	.00	.00	.00	.00
2) HYDRODYNAM * (34)		.00	.00	.00	17.00	.00	.00	.00	.00
3) NUC TESTING * (25)		.00	.00	.00	.00	.00	.00	39.00	.00
TOTAL		.00	.00	.00	12.14	.00	.00	11.14	.00

1.2 - THTR NUC - C3/I - TARGETING

FACTOR	WT	016	017	022	024	025	026	028	030
1) INSPECTION * (23)		.00	.00	.00	17.00	.00	.00	.00	.00
2) HYDRODYNAM * (14)		.00	.00	.00	17.00	.00	.00	.00	.00
3) NUC TESTING * (57)		.00	.00	.00	.00	.00	.00	39.00	.00
TOTAL		.00	.00	.00	7.29	.00	.00	22.29	.00

COMPLETED DATA SHEET

WEDNESDAY 8/20/1980 10 03

NODE	WEIGHT	SYSTEM SCORES							
		031	032	033	034	035	036	038	039
1	- THR NUC (WT 100)								
1.1	- PLATFORM (WT 30)								
1.1.1	- ENGINES (WT 63)	2	0	0	7	1	4	0	0
1.1.2	- AIRFRAME (WT 38)	6	6	2	0	0	0	0	0
1.2	- WEAPON (WT 35)								
1.2.1	- CASING/MTRE (WT 24)								
1.2.1.1	- GUN (WT 41)	0	0	0	0	0	0	0	0
1.2.1.2	- ROCKETS (WT 41)	0	0	0	0	0	44	0	0
1.2.1.3	- MISSILES (WT 18)	0	0	0	0	0	44	0	0
1.2.2	- INTERNAL (WT 33)								
1.2.2.1	- WARMING/DRY (WT 40)	0	0	0	0	0	0	0	0
1.2.2.2	- FUELING (WT 21)	0	0	0	0	0	0	0	0
1.2.2.3	- PROPELLANT (WT 38)	0	0	0	0	0	0	0	0
1.2.3	- GUIDANCE (WT 14)								
1.2.3.1	- RADAR (WT 37)	0	0	0	0	0	0	0	0
1.2.3.2	- PASSIVE ELTN (WT 11)	0	0	0	0	0	0	0	0
1.2.3.3	- ELCTR DETC (WT 5)	0	0	0	0	0	0	0	0
1.3	- NUC WEAPON (WT 28)								
1.3.1	- ANA DEVE (WT 24)	0	0	0	0	0	0	0	0
1.3.2	- TESTING (WT 47)								
1.3.2.1	- INTERFER (WT 11)	0	0	0	0	0	0	0	0
1.3.2.2	- HYDRO PWR (WT 30)	0	0	0	0	0	0	0	0
1.3.2.3	- NUC TESTING (WT 5)	0	0	0	0	0	0	0	0
1.3.3	- SP NUC MAT (WT 7)	0	0	0	0	0	0	0	0
1.3.4	- WEAPONRY (WT 18)	0	0	0	0	0	0	0	0
1.3.4.1	- FAE ADTECH (WT 14)	0	0	0	0	0	0	0	0
1.3.5	- CR J (WT 35)								
1.3.6	- EW (WT 9)	0	0	0	0	0	0	0	0
1.3.7	- NAV (WT 10)								
1.3.7.1	- RADAR (WT 40)	0	0	0	0	0	0	0	0
1.3.7.2	- PASSIVE ELTN (WT 37)	0	0	0	0	0	0	0	0
1.3.7.3	- ELCTR DETC (WT 25)	0	0	0	0	0	0	0	0
1.3.8	- COMM (WT 27)	0	0	0	0	0	0	0	0
1.3.9	- SURV (WT 34)								
1.3.9.1	- RADAR (WT 40)	0	0	0	0	0	0	0	0
1.3.9.2	- PASSIVE ELTN (WT 37)	0	0	0	0	0	0	0	0
1.3.9.3	- ELCTR DETC (WT 25)	0	0	0	0	0	0	0	0
1.3.10	- TARGETING (WT 20)								
1.3.10.1	- RADAR (WT 29)	0	0	0	0	0	0	0	0
1.3.10.2	- PASSIVE ELTN (WT 14)	0	0	0	0	0	0	0	0
1.3.10.3	- ELCTR DETC (WT 57)	0	0	0	0	0	0	0	0

THTR NUC-3

WEDNESDAY 8/20/1980 10:02

1 - THTR NUC

FACTOR	WT	031	032	033	034	035	036	038	039
1) PLATFORM (30)		3.50	2.25	2.00	4.38	.63	2.50	.00	.00
2) WEAPONS (35)		.00	.00	.20	.00	.35	6.24	.23	.50
3) C3/I (35)		.00	.00	.00	.00	.00	.00	3.26	6.24
TOTAL		1.04	.67	.66	1.30	.31	2.92	1.23	2.36

1.1 - THTR NUC - PLATFORM

FACTOR	WT	031	032	033	034	035	036	038	039
1) ENGINES *(63)		2.00	.00	2.00	7.00	1.00	4.00	.00	.00
2) AIRFRAMES *(38)		6.00	6.00	2.00	.00	.00	.00	.00	.00
TOTAL		3.50	2.25	2.00	4.38	.63	2.50	.00	.00

1.2 - THTR NUC - WEAPONS

FACTOR	WT	031	032	033	034	035	036	038	039
1) CASNG/MTRS (24)		.00	.00	.82	.00	.00	25.88	.00	.00
2) INTERNALS (33)		.00	.00	.00	.00	1.06	.00	.00	.00
3) GUIDANCE (14)		.00	.00	.00	.00	.00	.00	1.65	3.52
4) NUC WEAPON (28)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.20	.00	.35	6.24	.23	.50

1.2.1 - THTR NUC - WEAPONS - CASNG/MTRS

FACTOR	WT	031	032	033	034	035	036	038	039
1) GUNS *(41)		.00	.00	2.00	.00	.00	.00	.00	.00
2) ROCKETS *(41)		.00	.00	.00	.00	.00	44.00	.00	.00
3) BMR BMRITS *(18)		.00	.00	.00	.00	.00	44.00	.00	.00
TOTAL		.00	.00	.82	.00	.00	25.88	.00	.00

1.2.2 - THTR NUC - WEAPONS - INTERNALS

FACTOR	WT	031	032	033	034	035	036	038	039
1) WARDN CONV *(40)		.00	.00	.00	.00	.00	.00	.00	.00
2) FUZING *(21)		.00	.00	.00	.00	5.00	.00	.00	.00
3) PREDICTS *(38)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	1.06	.00	.00	.00

1.2.3 - THTR NUC - WEAPONS - GUIDANCE

FACTOR	WT	031	032	033	034	035	036	038	039
1) RADAR *(33)		.00	.00	.00	.00	.00	.00	5.00	8.00
2) PASS ELTRN *(11)		.00	.00	.00	.00	.00	.00	.00	8.00
3) ELCTR OPTC *(56)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	1.65	3.52

1.2.4 - THTR NUC - WEAPONS - NUC WEAPON

FACTOR	WT	031	032	033	034	035	036	038	039
1) ANAL DEVEL *(20)		.00	.00	.00	.00	.00	.00	.00	.00
2) TESTING (43)		.00	.00	.00	.00	.00	.00	.00	.00
3) SP NUC MAT *(7)		.00	.00	.00	.00	.00	.00	.00	.00
4) WEAPONZATN *(16)		.00	.00	.00	.00	.00	.00	.00	.00
5) FAR/ASSEMB *(14)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

THTR NUC-3 WEDNESDAY 8/26/1980 10:02

1.2.4.2 - THTR NUC - WEAPONS - NUC WEAPON - TESTING

FACTOR	WT	031	032	033	034	035	036	038	039
1) INSPECTION * (11)		.00	.00	.00	.00	.00	.00	.00	.00
2) HYDRODYNAM * (37)		.00	.00	.00	.00	.00	.00	.00	.00
3) NUC TESTING * (53)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3 - THTR NUC - C3/I

FACTOR	WT	031	032	033	034	035	036	038	039
1) EW * (9)		.00	.00	.00	.00	.00	.00	8.00	8.00
2) NAV * (10)		.00	.00	.00	.00	.00	.00	2.00	8.00
3) COMM * (22)		.00	.00	.00	.00	.00	.00	5.00	9.00
4) SURV * (39)		.00	.00	.00	.00	.00	.00	2.38	5.71
5) TARGETING * (20)		.00	.00	.00	.00	.00	.00	1.43	3.43
TOTAL		.00	.00	.00	.00	.00	.00	3.26	6.24

1.3.2 - THTR NUC - C3/I - NAV

FACTOR	WT	031	032	033	034	035	036	038	039
1) RADAR * (42)		.00	.00	.00	.00	.00	.00	5.00	8.00
2) PASS FILTER * (33)		.00	.00	.00	.00	.00	.00	.00	8.00
3) ELCTR OPTC * (25)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	2.00	6.00

1.3.4 - THTR NUC - C3/I - SURV

FACTOR	WT	031	032	033	034	035	036	038	039
1) RADAR * (48)		.00	.00	.00	.00	.00	.00	5.00	8.00
2) PASS FILTER * (24)		.00	.00	.00	.00	.00	.00	.00	8.00
3) ELCTR OPTC * (29)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	2.38	5.71

1.3.5 - THTR NUC - C3/I - TARGETING

FACTOR	WT	031	032	033	034	035	036	038	039
1) RADAR * (29)		.00	.00	.00	.00	.00	.00	5.00	8.00
2) PASS FILTER * (14)		.00	.00	.00	.00	.00	.00	.00	8.00
3) ELCTR OPTC * (57)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	1.43	3.43

COMPLETED DATA SHEET

WEDNESDAY 8/20/1980 10:09

NODE	WEIGHT	SYSTEM SCORES							
		040	041	042	043	044	045	046	047
1	- THTR NUC (WT 100)								
1.1	- PLATFORM (WT 30)								
1.1.1	- ENGINES (WT 63)	0	3	0	0	0	0	0	0
1.1.2	- AIRFRAMES (WT 38)	0	2	0	0	0	0	0	0
1.2	- WEAPONS (WT 35)								
1.2.1	- CASNG/MTES (WT 24)								
1.2.1.1	- GUNS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.2	- ROCKETS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.3	- RMB/RMBLTS (WT 18)	0	0	0	0	0	0	0	0
1.2.2	- INTERNAL (WT 33)								
1.2.2.1	- WARHD CONV (WT 40)	0	0	0	0	3	10	0	0
1.2.2.2	- FUZING (WT 21)	0	0	0	0	0	0	0	0
1.2.2.3	- PROFFLNG (WT 35)	0	0	0	0	0	0	0	0
1.2.3	- GUIDANCE (WT 14)								
1.2.3.1	- RADAR (WT 33)	3	5	6	3	0	0	0	1
1.2.3.2	- FASV ELTRN (WT 11)	6	5	6	6	0	0	0	1
1.2.3.3	- ELCTR OPTC (WT 52)	0	0	15	0	0	0	4	2
1.2.4	- NUC WEAPON (WT 28)								
1.2.4.1	- ANAL DEVEL (WT 20)	0	0	0	0	0	0	0	0
1.2.4.2	- TESTING (WT 43)								
1.2.4.2.1	- INSPECTION (WT 11)	0	0	0	0	0	0	0	0
1.2.4.2.2	- HYDRODYNAM (WT 37)	0	0	0	0	0	0	0	0
1.2.4.2.3	- NUC TESTING (WT 53)	0	0	0	0	0	0	0	0
1.2.4.3	- SE NUC MAT (WT 7)	0	0	0	0	0	0	0	0
1.2.4.4	- WEAPONDATA (WT 16)	0	0	0	0	0	0	0	0
1.2.4.5	- FAB ASSEMB (WT 14)	0	0	0	0	0	0	0	0
1.3	- CS 2 (WT 35)								
1.3.1	- EW (WT 9)	5	4	6	5	0	0	0	1
1.3.2	- NAV (WT 10)								
1.3.2.1	- RADAR (WT 42)	3	5	6	3	0	0	0	1
1.3.2.2	- FASV ELTRN (WT 33)	6	5	6	6	0	0	0	1
1.3.2.3	- ELCTR OPTC (WT 25)	0	0	15	0	0	0	4	2
1.3.3	- COMM (WT 22)	3	5	0	6	0	0	0	0
1.3.4	- SURV (WT 39)								
1.3.4.1	- RADAR (WT 48)	3	5	6	3	0	0	0	1
1.3.4.2	- FASV ELTRN (WT 24)	6	5	6	6	0	0	0	1
1.3.4.3	- ELCTR OPTC (WT 29)	0	0	15	0	0	0	4	2
1.3.5	- TARGETING (WT 20)								
1.3.5.1	- RADAR (WT 29)	3	5	6	3	0	0	0	1
1.3.5.2	- FASV ELTRN (WT 14)	6	5	6	6	0	0	0	1
1.3.5.3	- ELCTR OPTC (WT 57)	0	0	15	0	0	0	4	2

-A092 823

DECISIONS AND DESIGNS INC MCLEAN VA F/G 15/7
AN ASSESSMENT OF THE IMPORTANCE OF TECHNOLOGIES TO MILITARY CAP--ETC(U)
OCT 80 R R STEWART, G A FRISVOLD ARPA ORDER-3859
PR-80-25-315.43 NL

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THTR NUC-4

WEDNESDAY 8/20/1980 10:09

1 - THTR NUC									
FACTOR	WT	040	041	042	043	044	045	046	047
1) PLATFORM	(30)	.00	2.63	.00	.00	.00	.00	.00	.00
2) WEAPONS	(35)	.23	.31	1.57	.23	.40	1.35	.32	.22
3) C3/I	(35)	2.90	3.67	6.89	3.57	.00	.00	.99	1.02
TOTAL		1.11	2.19	2.98	1.34	.14	.47	.44	.44

1.1 - THTR NUC - PLATFORM									
FACTOR	WT	040	041	042	043	044	045	046	047
1) ENGINES	*(63)	.00	3.00	.00	.00	.00	.00	.00	.00
2) AIRFRAMES	*(38)	.00	2.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	2.63	.00	.00	.00	.00	.00	.00

1.2 - THTR NUC - WEAPONS									
FACTOR	WT	040	041	042	043	044	045	046	047
1) CASNG/MTRS	(24)	.00	.00	.00	.00	1.21	4.04	.00	.00
2) INTERNALS	(33)	.00	.00	.00	.00	.00	.00	2.24	1.56
3) GUIDANCE	(14)	1.65	2.20	11.04	1.65	.00	.00	.00	.00
4) NUC WEAPON	(28)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.23	.31	1.57	.23	.40	1.35	.32	.22

1.2.1 - THTR NUC - WEAPONS - CASNG/MTRS									
FACTOR	WT	040	041	042	043	044	045	046	047
1) GUNS	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
2) ROCKETS	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
3) BMR/BMBLTS	*(18)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.2.2 - THTR NUC - WEAPONS - INTERNALS									
FACTOR	WT	040	041	042	043	044	045	046	047
1) WAFHD/CONV	*(40)	.00	.00	.00	.00	3.00	10.00	.00	.00
2) FUZING	*(21)	.00	.00	.00	.00	.00	.00	.00	.00
3) PROPELNTS	*(38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	1.21	4.04	.00	.00

1.2.3 - THTR NUC - WEAPONS - GUIDANCE									
FACTOR	WT	040	041	042	043	044	045	046	047
1) RADAR	*(33)	3.00	5.00	6.00	3.00	.00	.00	.00	1.00
2) PASV ELTRN	*(11)	6.00	5.00	6.00	6.00	.00	.00	.00	1.00
3) ELCTR OPTC	*(56)	.00	.00	15.00	.00	.00	.00	4.00	2.00
TOTAL		1.65	2.20	11.04	1.65	.00	.00	2.24	1.56

1.2.4 - THTR NUC - WEAPONS - NUC WEAPON									
FACTOR	WT	040	041	042	043	044	045	046	047
1) ANAL/DEVEL	*(20)	.00	.00	.00	.00	.00	.00	.00	.00
2) TESTING	(43)	.00	.00	.00	.00	.00	.00	.00	.00
3) SP NUC MAT	*(7)	.00	.00	.00	.00	.00	.00	.00	.00
4) WEAPONZATN	*(16)	.00	.00	.00	.00	.00	.00	.00	.00
5) FAB/ASSEMB	*(14)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

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1.2.4.2 - THTR NUC - WEAPONS - NUC WEAPON - TESTING

FACTOR	WT	040	041	042	043	044	045	046	047
1) INSPECTION *(11)		.00	.00	.00	.00	.00	.00	.00	.00
2) HYDRODYNAM *(37)		.00	.00	.00	.00	.00	.00	.00	.00
3) NUC TESTING *(53)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3 - THTR NUC - C3/I

FACTOR	WT	040	041	042	043	044	045	046	047
1) EW *(9)		5.00	4.00	6.00	5.00	.00	.00	.00	1.00
2) NAV *(10)		3.25	3.75	8.25	3.25	.00	.00	1.00	1.25
3) COMM *(22)		3.00	5.00	.00	6.00	.00	.00	.00	.00
4) SURV *(39)		2.86	3.57	8.57	2.86	.00	.00	1.14	1.29
5) TARGETING *(20)		1.71	2.14	11.14	1.71	.00	.00	2.29	1.57
TOTAL		2.90	3.67	6.89	3.57	.00	.00	.99	1.00

1.3.2 - THTR NUC - C3/I

FACTOR	WT	040	041	042	043	044	045	046	047
1) RADAR *(42)		3.00	5.00	6.00	3.00	.00	.00	.00	1.00
2) PASS FILTER *(33)		6.00	5.00	6.00	6.00	.00	.00	.00	1.00
3) FLETH OPTC *(25)		.00	.00	15.00	.00	.00	.00	4.00	2.00
TOTAL		3.25	3.75	8.25	3.25	.00	.00	1.00	1.25

1.3.4 - THTR NUC - C3/I

FACTOR	WT	040	041	042	043	044	045	046	047
1) RADAR *(48)		3.00	5.00	6.00	3.00	.00	.00	.00	1.00
2) PASS FILTER *(34)		6.00	5.00	6.00	6.00	.00	.00	.00	1.00
3) FLETH OPTC *(29)		.00	.00	15.00	.00	.00	.00	4.00	2.00
TOTAL		2.86	3.57	8.57	2.86	.00	.00	1.14	1.29

1.3.5 - THTR NUC - C3/I

FACTOR	WT	040	041	042	043	044	045	046	047
1) RADAR *(29)		3.00	5.00	6.00	3.00	.00	.00	.00	1.00
2) PASS FILTER *(14)		6.00	5.00	6.00	6.00	.00	.00	.00	1.00
3) FLETH OPTC *(57)		.00	.00	15.00	.00	.00	.00	4.00	2.00
TOTAL		1.71	2.14	11.14	1.71	.00	.00	2.29	1.57

COMPLETED DATA SHEET

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NODE	WEIGHT	SYSTEM SCORES							
		048	049	050	051	098	053	054	055
1	- THTR NUC (WT 100)								
1.1	- PLATFORM (WT 30)								
1.1.1	- ENGINES (WT 63)	0	0	0	8	0	0	0	0
1.1.2	- AIRFRAMES (WT 38)	0	0	0	0	1	0	0	0
1.2	- WEAPONS (WT 35)								
1.2.1	- CASNG/MTRS (WT 24)								
1.2.1.1	- GUNS (WT 41)	0	0	0	2	0	0	0	0
1.2.1.2	- ROCKETS (WT 41)	0	0	0	2	0	0	0	0
1.2.1.3	- RMK/RMBLTS (WT 18)	0	0	0	2	0	0	0	0
1.2.2	- INTERNALS (WT 33)								
1.2.2.1	- WARHD/CONV (WT 40)	0	0	0	12	0	10	0	0
1.2.2.2	- FUZING (WT 21)	8	0	0	0	0	0	35	35
1.2.2.3	- PROPELLNTS (WT 38)	0	0	0	0	0	0	0	0
1.2.3	- GUIDANCE (WT 14)								
1.2.3.1	- RADAR (WT 33)	0	2	4	0	0	0	11	19
1.2.3.2	- PASV ELTRN (WT 11)	0	2	4	0	0	0	11	19
1.2.3.3	- ELCTR OPTC (WT 56)	0	0	9	0	0	0	0	0
1.2.4	- NUC WEAPON (WT 28)								
1.2.4.1	- ANAL/DEVEL (WT 20)	0	0	0	0	0	0	14	19
1.2.4.2	- TESTING (WT 43)								
1.2.4.2.1	- INSPECTION (WT 11)	0	0	0	0	0	0	0	0
1.2.4.2.2	- HYDRODYNAM (WT 37)	0	0	0	0	6	0	0	0
1.2.4.2.3	- NUC TESTING (WT 53)	0	0	0	0	23	0	0	0
1.2.4.3	- SF NUC MAT (WT 7)	0	0	0	0	0	0	0	0
1.2.4.4	- WEAPONZATN (WT 16)	0	0	0	0	0	0	0	0
1.2.4.5	- FAB/ASSEMB (WT 14)	0	0	0	0	0	0	0	0
1.3	- C3/I (WT 35)								
1.3.1	- EW (WT 9)	0	2	3	0	0	0	10	17
1.3.2	- NAV (WT 10)								
1.3.2.1	- RADAR (WT 42)	0	2	4	0	0	0	11	19
1.3.2.2	- PASV ELTRN (WT 33)	0	2	4	0	0	0	11	19
1.3.2.3	- ELCTR OPTC (WT 25)	0	0	9	0	0	0	0	0
1.3.3	- COMM (WT 22)	0	0	0	0	0	0	12	20
1.3.4	- SURV (WT 39)								
1.3.4.1	- RADAR (WT 48)	0	2	4	0	0	0	11	19
1.3.4.2	- PASV ELTRN (WT 24)	0	2	4	0	0	0	11	19
1.3.4.3	- ELCTR OPTC (WT 29)	0	0	9	0	0	0	0	0
1.3.5	- TARGETING (WT 20)								
1.3.5.1	- RADAR (WT 29)	0	2	4	0	0	0	11	19
1.3.5.2	- PASV ELTRN (WT 14)	0	2	4	0	0	0	11	19
1.3.5.3	- ELCTR OPTC (WT 57)	0	0	9	0	0	0	0	0

THTR NUC-5

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1 - THTR NUC

FACTOR	WT	048	049	050	051	098	053	054	055
1) PLATFORM	(30)	.00	.00	.00	5.00	.38	.00	.00	.00
2) WEAPONS	(35)	.57	.12	.96	2.10	1.75	1.35	3.98	4.77
3) C3/I	(35)	.00	1.05	4.26	.00	.00	.00	8.40	14.32
TOTAL		.20	.42	1.84	2.22	.72	.47	4.36	6.73

1.1 - THTR NUC - PLATFORM

FACTOR	WT	048	049	050	051	098	053	054	055
1) ENGINES	*(63)	.00	.00	.00	8.00	.00	.00	.00	.00
2) AIRFRAMES	*(38)	.00	.00	.00	.00	1.00	.00	.00	.00
TOTAL		.00	.00	.00	5.00	.38	.00	.00	.00

1.2 - THTR NUC - WEAPONS

FACTOR	WT	048	049	050	051	098	053	054	055
1) CASNG/MTRS	(24)	.00	.00	.00	2.00	.00	.00	.00	.00
2) INTERNALS	(33)	1.70	.00	.00	4.85	.00	4.04	7.45	7.45
3) GUIDANCE	(14)	.00	.88	6.80	.00	.00	.00	4.84	8.36
4) NUC WEAPON	(28)	.00	.00	.00	.00	6.18	.00	2.84	3.89
TOTAL		.57	.12	.96	2.10	1.75	1.35	3.98	4.77

1.2.1 - THTR NUC - WEAPONS - CASNG/MTRS

FACTOR	WT	048	049	050	051	098	053	054	055
1) GUNS	*(41)	.00	.00	.00	2.00	.00	.00	.00	.00
2) ROCKETS	*(41)	.00	.00	.00	2.00	.00	.00	.00	.00
3) RMR/RMITS	*(18)	.00	.00	.00	2.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	2.00	.00	.00	.00	.00

1.2.2 - THTR NUC - WEAPONS - INTERNALS

FACTOR	WT	048	049	050	051	098	053	054	055
1) WARHD/CONV	*(40)	.00	.00	.00	12.00	.00	10.00	.00	.00
2) FUZING	*(21)	8.00	.00	.00	.00	.00	.00	35.00	35.00
3) PROPELLNTS	*(38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		1.70	.00	.00	4.85	.00	4.04	7.45	7.45

1.2.3 - THTR NUC - WEAPONS - GUIDANCE

FACTOR	WT	048	049	050	051	098	053	054	055
1) RADAR	*(33)	.00	2.00	4.00	.00	.00	.00	11.00	19.00
2) PASV ELTRN	*(11)	.00	2.00	4.00	.00	.00	.00	11.00	19.00
3) ELCTR OPTC	*(56)	.00	.00	9.00	.00	.00	.00	.00	.00
TOTAL		.00	.88	6.80	.00	.00	.00	4.84	8.36

1.2.4 - THTR NUC - WEAPONS - NUC WEAPON

FACTOR	WT	048	049	050	051	098	053	054	055
1) ANAL/DEVEL	*(20)	.00	.00	.00	.00	.00	.00	14.00	19.00
2) TESTING	(43)	.00	.00	.00	.00	14.32	.00	.00	.00
3) SP NUC MAT	*(7)	.00	.00	.00	.00	.00	.00	.00	.00
4) WEAPONZATN	*(16)	.00	.00	.00	.00	.00	.00	.00	.00
5) FAB/ASSEMB	*(14)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	6.18	.00	2.84	3.89

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1.2.4.2 - THTR NUC - WEAPONS - NUC WEAPON - TESTING

FACTOR	WT	048	049	050	051	098	053	054	055
1) INSPECTION *(11)		.00	.00	.00	.00	.00	.00	.00	.00
2) HYDRODYNAM *(37)		.00	.00	.00	.00	6.00	.00	.00	.00
3) NUC TESTING *(53)		.00	.00	.00	.00	23.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	14.37	.00	.00	.00

1.3 - THTR NUC - C3/I

FACTOR	WT	048	049	050	051	098	053	054	055
1) EW *(9)		.00	2.00	3.00	.00	.00	.00	10.00	17.00
2) NAV *(10)		.00	1.50	5.25	.00	.00	.00	8.25	14.25
3) COMM *(22)		.00	.00	.00	.00	.00	.00	12.00	20.00
4) SURV *(39)		.00	1.43	5.43	.00	.00	.00	7.86	13.57
5) TARGETING *(20)		.00	.86	6.86	.00	.00	.00	4.71	8.14
TOTAL		.00	1.05	4.26	.00	.00	.00	8.40	14.37

1.3.2 - THTR NUC - C3/I

FACTOR	WT	048	049	050	051	098	053	054	055
1) RADAR *(42)		.00	2.00	4.00	.00	.00	.00	11.00	19.00
2) PASV ELTRN *(33)		.00	2.00	4.00	.00	.00	.00	11.00	19.00
3) ELCTR OFTC *(25)		.00	.00	9.00	.00	.00	.00	.00	.00
TOTAL		.00	1.50	5.25	.00	.00	.00	8.25	14.25

1.3.4 - THTR NUC - C3/I

FACTOR	WT	048	049	050	051	098	053	054	055
1) RADAR *(48)		.00	2.00	4.00	.00	.00	.00	11.00	19.00
2) PASV ELTRN *(24)		.00	2.00	4.00	.00	.00	.00	11.00	19.00
3) ELCTR OFTC *(29)		.00	.00	9.00	.00	.00	.00	.00	.00
TOTAL		.00	1.43	5.43	.00	.00	.00	7.86	13.57

1.3.5 - THTR NUC - C3/I

FACTOR	WT	048	049	050	051	098	053	054	055
1) RADAR *(29)		.00	2.00	4.00	.00	.00	.00	11.00	19.00
2) PASV ELTRN *(14)		.00	2.00	4.00	.00	.00	.00	11.00	19.00
3) ELCTR OFTC *(57)		.00	.00	9.00	.00	.00	.00	.00	.00
TOTAL		.00	.86	6.86	.00	.00	.00	4.71	8.14

COMPLETED DATA SHEET

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NODE	WEIGHT	SYSTEM SCORES							
		099	057	062	063	065	072	075	082
1	- THTR NUC (WT 100)								
1.1	- PLATFORM (WT 30)								
1.1.1	- ENGINES (WT 63)	0	0	0	0	0	6	0	0
1.1.2	- AIRFRAMES (WT 38)	0	0	5	0	0	14	0	0
1.2	- WEAPONS (WT 35)								
1.2.1	- CASNG/HTRS (WT 24)								
1.2.1.1	- GUNS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.2	- ROCKETS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.3	- HMB/RMBITS (WT 18)	0	0	0	0	0	0	0	0
1.2.2	- INTERNALS (WT 33)								
1.2.2.1	- WARHD/CONV (WT 40)	24	8	0	0	0	0	0	0
1.2.2.2	- FUZING (WT 21)	0	0	0	0	12	0	0	0
1.2.2.3	- PROPELLNTS (WT 38)	32	0	0	0	0	0	0	14
1.2.3	- GUIDANCE (WT 14)								
1.2.3.1	- RADAR (WT 33)	0	0	12	1	3	0	2	0
1.2.3.2	- PASSV ELTRN (WT 11)	0	0	12	1	3	0	2	0
1.2.3.3	- ELCTR OPTC (WT 56)	0	0	28	2	0	0	0	0
1.2.4	- NUC WEAPON (WT 28)								
1.2.4.1	- ANAL/DEVEL (WT 20)	0	0	0	0	0	1	22	0
1.2.4.2	- TESTING (WT 43)								
1.2.4.2.1	- INSPECTION (WT 11)	0	0	0	0	0	0	0	0
1.2.4.2.2	- HYDRODYNAM (WT 37)	0	0	0	0	6	0	0	0
1.2.4.2.3	- NUC TESTING (WT 53)	0	0	23	0	0	0	0	0
1.2.4.3	- SP NUC MAT (WT 7)	0	0	0	0	0	0	0	0
1.2.4.4	- WEAPON TATN (WT 16)	0	0	0	0	0	0	0	0
1.2.4.5	- FAR ACSTENR (WT 14)	0	0	0	0	0	0	0	0
1.3	- C3AI (WT 35)								
1.3.1	- EW (WT 9)	0	0	11	1	3	0	2	0
1.3.2	- NAV (WT 10)								
1.3.2.1	- RADAR (WT 42)	0	0	12	1	3	0	2	0
1.3.2.2	- PASSV ELTRN (WT 33)	0	0	12	1	3	0	2	0
1.3.2.3	- ELCTR OPTC (WT 25)	0	0	28	2	0	0	0	0
1.3.3	- COMM (WT 22)	0	0	13	0	3	0	2	0
1.3.4	- SURV (WT 39)								
1.3.4.1	- RADAR (WT 48)	0	0	12	1	3	0	2	0
1.3.4.2	- PASSV ELTRN (WT 24)	0	0	12	1	3	0	2	0
1.3.4.3	- ELCTR OPTC (WT 25)	0	0	28	2	0	0	0	0
1.3.5	- TARGETING (WT 20)								
1.3.5.1	- RADAR (WT 29)	0	0	12	1	3	0	2	0
1.3.5.2	- PASSV ELTRN (WT 14)	0	0	12	1	3	0	2	0
1.3.5.3	- ELCTR OPTC (WT 57)	0	0	28	2	0	0	0	0

THTR NUC-6

WEDNESDAY 8/20/1980 10.25

1 - THTR NUC

FACTOR	WT	099	057	062	063	065	072	075	082
1) PLATFORM	(30)	.00	.00	1.88	.00	.00	9.00	.00	.00
2) WEAPONS	(35)	7.32	1.08	4.44	.22	1.31	.06	1.40	1.79
3) C3/I	(35)	.00	.00	16.11	1.02	2.25	.00	1.50	.00
TOTAL		2.56	.38	7.81	.44	1.25	2.69	1.02	.62

1.1 - THTR NUC - PLATFORM

FACTOR	WT	099	057	062	063	065	072	075	082
1) ENGINES	*(63)	.00	.00	.00	.00	.00	6.00	.00	.00
2) AIRFRAMES	*(38)	.00	.00	5.00	.00	.00	14.00	.00	.00
TOTAL		.00	.00	1.88	.00	.00	9.00	.00	.00

1.2 - THTR NUC - WEAPONS

FACTOR	WT	099	057	062	063	065	072	075	082
1) CASING MISC	(24)	.00	.00	.00	.00	.00	.00	.00	.00
2) INTERNALS	(33)	21.96	3.23	.00	.00	2.55	.00	.00	5.36
3) GUIDANCE	(14)	.00	.00	20.96	1.56	1.32	.00	.88	.00
4) NUC WEAPON	(20)	.00	.00	5.23	.00	.95	.20	4.50	.00
TOTAL		7.32	1.08	4.44	.22	1.31	.06	1.40	1.79

1.2.1 - THTR NUC - WEAPONS - CASING MISC

FACTOR	WT	099	057	062	063	065	072	075	082
1) GUN	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
2) ROCKET	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
3) FMJ IMPR TS	*(18)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.2.2 - THTR NUC - WEAPONS - INTERNALS

FACTOR	WT	099	057	062	063	065	072	075	082
1) WARHD CONV	*(40)	24.00	8.00	.00	.00	.00	.00	.00	.00
2) FUZING	*(21)	.00	.00	.00	.00	12.00	.00	.00	.00
3) PROPELLNTS	*(38)	32.00	.00	.00	.00	.00	.00	.00	14.00
TOTAL		21.96	3.23	.00	.00	2.55	.00	.00	5.36

1.2.3 - THTR NUC - WEAPONS - GUIDANCE

FACTOR	WT	099	057	062	063	065	072	075	082
1) RADAR	*(33)	.00	.00	12.00	1.00	3.00	.00	2.00	.00
2) RADV ELTRN	*(11)	.00	.00	12.00	1.00	3.00	.00	2.00	.00
3) ELCTR OPTC	*(56)	.00	.00	28.00	2.00	.00	.00	.00	.00
TOTAL		.00	.00	20.96	1.56	1.32	.00	.88	.00

1.2.4 - THTR NUC - WEAPONS - NUC WEAPON

FACTOR	WT	099	057	062	063	065	072	075	082
1) ANAL/DEVEL	*(20)	.00	.00	.00	.00	.00	1.00	22.00	.00
2) TESTING	(43)	.00	.00	12.11	.00	2.21	.00	.00	.00
3) SF NUC MAT	*(7)	.00	.00	.00	.00	.00	.00	.00	.00
4) WEAPONCATN	*(16)	.00	.00	.00	.00	.00	.00	.00	.00
5) FAB/ASSEMB	*(14)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	5.23	.00	.95	.20	4.50	.00

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1.2.4.2 - THTR NUC - WEAPONS		- NUC WEAPON - TESTING							
FACTOR	WT	099	057	062	063	065	072	075	082
1) INSPECTION *(11)		.00	.00	.00	.00	.00	.00	.00	.00
2) HYDRODYNAM *(37)		.00	.00	.00	.00	6.00	.00	.00	.00
3) NUC TESTING *(53)		.00	.00	23.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	12.11	.00	2.21	.00	.00	.00

1.3 - THTR NUC - C3/I									
FACTOR	WT	099	057	062	063	065	072	075	082
1) EW *(9)		.00	.00	11.00	1.00	3.00	.00	2.00	.00
2) NAV *(10)		.00	.00	16.00	1.25	2.25	.00	1.50	.00
3) COMM *(22)		.00	.00	13.00	.00	3.00	.00	2.00	.00
4) SURV *(39)		.00	.00	16.57	1.29	2.14	.00	1.43	.00
5) TARGETING *(20)		.00	.00	21.14	1.57	1.29	.00	.86	.00
TOTAL		.00	.00	16.11	1.02	2.25	.00	1.50	.00

1.3.2 - THTR NUC - C3/I		- NAV							
FACTOR	WT	099	057	062	063	065	072	075	082
1) RADAR *(42)		.00	.00	12.00	1.00	3.00	.00	2.00	.00
2) PASSV ELTRN *(37)		.00	.00	12.00	1.00	3.00	.00	2.00	.00
3) ELCTR OPTC *(25)		.00	.00	28.00	2.00	.00	.00	.00	.00
TOTAL		.00	.00	16.00	1.25	2.25	.00	1.50	.00

1.3.4 - THTR NUC - C3/I		- SURV							
FACTOR	WT	099	057	062	063	065	072	075	082
1) RADAR *(48)		.00	.00	12.00	1.00	3.00	.00	2.00	.00
2) PASSV ELTRN *(24)		.00	.00	12.00	1.00	3.00	.00	2.00	.00
3) ELCTR OPTC *(29)		.00	.00	28.00	2.00	.00	.00	.00	.00
TOTAL		.00	.00	16.57	1.29	2.14	.00	1.43	.00

1.3.5 - THTR NUC - C3/I		- TARGETING							
FACTOR	WT	099	057	062	063	065	072	075	082
1) RADAR *(29)		.00	.00	12.00	1.00	3.00	.00	2.00	.00
2) PASSV ELTRN *(14)		.00	.00	12.00	1.00	3.00	.00	.00	.00
3) ELCTR OPTC *(57)		.00	.00	28.00	2.00	.00	.00	.86	.00
TOTAL		.00	.00	21.14	1.57	1.29	.00	.86	.00

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NODE	WEIGHT	SYSTEM SCORES							
		080	081	073	083	084	027	064	077
1	- THTR NUC (WT 100)								
1.1	- PLATFORM (WT 30)								
1.1.1	- ENGINES (WT 63)	0	0	0	0	0	0	0	0
1.1.2	- AIRFRAMES (WT 38)	0	0	0	0	0	0	0	0
1.2	- WEAPONS (WT 35)								
1.2.1	- CASNG/MTRS (WT 24)								
1.2.1.1	- GUNS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.2	- ROCKETS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.3	- RMK/RMMLTS (WT 18)	0	0	0	0	0	0	0	0
1.2.2	- INTERNALS (WT 33)								
1.2.2.1	- WARHD/CONV (WT 40)	0	0	0	0	0	0	0	0
1.2.2.2	- FUZING (WT 21)	0	0	0	0	0	0	0	0
1.2.2.3	- PROPELNTS (WT 38)	34	18	0	0	0	0	0	0
1.2.3	- GUIDANCE (WT 14)								
1.2.3.1	- RADAR (WT 33)	0	0	0	0	0	0	0	0
1.2.3.2	- PASSV ELTRN (WT 11)	0	0	0	0	0	0	0	0
1.2.3.3	- ELCTR OPTC (WT 56)	0	0	0	0	0	0	0	0
1.2.4	- NUC WEAPON (WT 28)								
1.2.4.1	- ANAL DEVEL (WT 20)	0	0	4	22	18	0	0	0
1.2.4	- TESTING (WT 47)								
1.2.4.1.1	- INFLECTION (WT 11)	0	0	0	0	0	23	5	23
1.2.4.1.2	- HYDRODYNAM (WT 37)	0	0	0	0	0	0	0	0
1.2.4.1.3	- NUC TESTING (WT 53)	0	0	0	0	0	0	0	0
1.2.4.3	- SE NUC MAT (WT 7)	0	0	0	0	0	0	0	0
1.2.4.4	- WEAPONZATN (WT 14)	0	0	0	0	0	0	0	0
1.2.4.5	- FAL ASSEMB (WT 14)	0	0	0	0	0	0	0	0
1.3	- CS 1 (WT 35)								
1.3.1	- EW (WT 9)	0	0	0	0	0	0	0	0
1.3.2	- NAV (WT 10)								
1.3.2.1	- RADAR (WT 42)	0	0	0	0	0	0	0	0
1.3.2.2	- PASSV ELTRN (WT 33)	0	0	0	0	0	0	0	0
1.3.2.3	- ELCTR OPTC (WT 25)	0	0	0	0	0	0	0	0
1.3.3	- COMM (WT 22)	0	0	0	0	0	0	0	0
1.3.4	- SURV (WT 39)								
1.3.4.1	- RADAR (WT 48)	0	0	0	0	0	0	0	0
1.3.4.2	- PASSV ELTRN (WT 24)	0	0	0	0	0	0	0	0
1.3.4.3	- ELCTR OPTC (WT 29)	0	0	0	0	0	0	0	0
1.3.5	- TARGETING (WT 20)								
1.3.5.1	- RADAR (WT 29)	0	0	0	0	0	0	0	0
1.3.5.2	- PASSV ELTRN (WT 14)	0	0	0	0	0	0	0	0
1.3.5.3	- ELCTR OPTC (WT 57)	0	0	0	0	0	0	0	0

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1 - THTR NUC		WT	080	081	073	083	084	027	064	077
1) PLATFORM	(30)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) WEAPONS	(35)	4.60	2.30	.23	1.28	1.04	.30	.06	.30	.00
3) C3/I	(35)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		1.60	.80	.08	.45	.36	.10	.02	.10	

1.1 - THTR NUC - PLATFORM		WT	080	081	073	083	084	027	064	077
1) ENGINES	*(63)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) AIRFRAMES	*(38)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00	.00

1.2 - THTR NUC - WEAPONS		WT	080	081	073	083	084	027	064	077
1) CASING/MTES	(24)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) INTERNAL	(33)	13.79	6.89	.00	.00	.00	.00	.00	.00	.00
3) GUIDANCE	(14)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) NUC WEAPON	(28)	.00	.00	.82	4.50	3.68	1.05	.23	1.05	
TOTAL		4.60	2.30	.23	1.28	1.04	.30	.06	.30	

1.2.1 - THTR NUC - WEAPONS - CASING/MTES		WT	080	081	073	083	084	027	064	077
1) GUNS	*(41)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) ROCKETS	*(41)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) MM/AMMETS	*(18)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00	.00

1.2.2 - THTR NUC - WEAPONS - INTERNAL		WT	080	081	073	083	084	027	064	077
1) WARD/CONV	*(40)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) FUZING	*(21)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) PROPELLTS	*(38)	36.00	18.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		13.79	6.89	.00	.00	.00	.00	.00	.00	.00

1.2.3 - THTR NUC - WEAPONS - GUIDANCE		WT	080	081	073	083	084	027	064	077
1) RADAR	*(33)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN	*(11)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC	*(56)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00	.00

1.2.4 - THTR NUC - WEAPONS - NUC WEAPON		WT	080	081	073	083	084	027	064	077
1) ANAL/DEVEL	*(20)	.00	.00	4.00	22.00	18.00	.00	.00	.00	.00
2) TESTING	(43)	.00	.00	.00	.00	.00	2.42	.53	2.42	
3) SP NUC MAT	*(7)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) WEAPONZATN	*(16)	.00	.00	.00	.00	.00	.00	.00	.00	.00
5) FAK/ASSEMB	*(14)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.82	4.50	3.68	1.05	.23	1.05	

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1.2.4.2 - THTR NUC - WEAPONS - NUC WEAPON - TESTING

FACTOR	WT	080	081	073	083	084	027	064	077
1) INSPECTION *(11)		.00	.00	.00	.00	.00	23.00	5.00	23.00
2) HYDRODYNAM *(37)		.00	.00	.00	.00	.00	.00	.00	.00
3) NUC TESTING *(53)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	2.40	.53	2.40

1.3 - THTR NUC - C3/I

FACTOR	WT	080	081	073	083	084	027	064	077
1) EW *(9)		.00	.00	.00	.00	.00	.00	.00	.00
2) NAV *(10)		.00	.00	.00	.00	.00	.00	.00	.00
3) COMM *(22)		.00	.00	.00	.00	.00	.00	.00	.00
4) DIRV *(39)		.00	.00	.00	.00	.00	.00	.00	.00
5) TARGETING *(20)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.1 - THTR NUC - C3/I - NAV

FACTOR	WT	080	081	073	083	084	027	064	077
1) RADAR *(42)		.00	.00	.00	.00	.00	.00	.00	.00
2) RADV FILTER *(73)		.00	.00	.00	.00	.00	.00	.00	.00
3) ELECT DETC *(21)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.4 - THTR NUC - C3/I - DIRV

FACTOR	WT	080	081	073	083	084	027	064	077
1) RADAR *(45)		.00	.00	.00	.00	.00	.00	.00	.00
2) RADV FILTER *(24)		.00	.00	.00	.00	.00	.00	.00	.00
3) ELECT DETC *(28)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.5 - THTR NUC - C3/I - TARGETING

FACTOR	WT	080	081	073	083	084	027	064	077
1) RADAR *(20)		.00	.00	.00	.00	.00	.00	.00	.00
2) RADV FILTER *(14)		.00	.00	.00	.00	.00	.00	.00	.00
3) ELECT DETC *(57)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

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NODE	WEIGHT	SYSTEM SCORES							
		060	029	066	067	070	059	071	087
1	- THTR NUC (WT 100)								
1.1	- PLATFORM (WT 30)								
1.1.1	- ENGINES (WT 63)	0	0	0	0	0	0	0	0
1.1.2	- AIRFRAMES (WT 38)	0	0	0	0	0	0	0	0
1.2	- WEAPONS (WT 35)								
1.2.1	- CASNG/MTRS (WT 24)								
1.2.1.1	- GUNS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.2	- ROCKETS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.3	- BMB/BMRILTS (WT 18)	0	0	0	0	0	0	0	0
1.2.2	- INTERNALS (WT 33)								
1.2.2.1	- WARHD/CONV (WT 40)	0	0	0	0	0	0	0	0
1.2.2.2	- FUZING (WT 21)	0	0	0	0	0	0	0	0
1.2.2.3	- PROPELNTS (WT 38)	0	0	0	0	0	0	0	0
1.2.3	- GUIDANCE (WT 14)								
1.2.3.1	- RADAR (WT 33)	0	0	0	0	0	0	0	0
1.2.3.2	- PASV ELTRN (WT 11)	0	0	0	0	0	0	0	0
1.2.3.3	- ELCTR OPTC (WT 56)	0	0	0	0	0	0	0	0
1.2.4	- NUC WEAPON (WT 28)								
1.2.4.1	- ANAL DEVEL (WT 20)	0	0	0	0	0	0	0	0
1.2.4.2	- TESTING (WT 43)								
1.2.4.2.1	- INSPECTION (WT 11)	14	5	0	0	0	0	0	0
1.2.4.2.2	- HYDRODYNAM (WT 37)	0	0	6	6	18	24	15	6
1.2.4.2.3	- NUC TESTING (WT 53)	0	0	0	0	0	0	0	0
1.2.4.3	- SE NUC MAT (WT 7)	0	0	0	0	0	0	0	0
1.2.4.4	- WEAPON MTRN (WT 16)	0	0	0	0	0	0	0	0
1.2.4.5	- FAB ASSEMB (WT 14)	0	0	0	0	0	0	0	0
1.3	- C3 I (WT 35)								
1.3.1	- EW (WT 9)	0	0	0	0	0	0	0	0
1.3.2	- NAV (WT 10)								
1.3.2.1	- RADAR (WT 42)	0	0	0	0	0	0	0	0
1.3.2.2	- PASV ELTRN (WT 33)	0	0	0	0	0	0	0	0
1.3.2.3	- ELCTR OPTC (WT 25)	0	0	0	0	0	0	0	0
1.3.3	- COMM (WT 22)	0	0	0	0	0	0	0	0
1.3.4	- SURV (WT 39)								
1.3.4.1	- RADAR (WT 48)	0	0	0	0	0	0	0	0
1.3.4.2	- PASV ELTRN (WT 24)	0	0	0	0	0	0	0	0
1.3.4.3	- ELCTR OPTC (WT 29)	0	0	0	0	0	0	0	0
1.3.5	- TARGETING (WT 20)								
1.3.5.1	- RADAR (WT 29)	0	0	0	0	0	0	0	0
1.3.5.2	- PASV ELTRN (WT 14)	0	0	0	0	0	0	0	0
1.3.5.3	- ELCTR OPTC (WT 57)	0	0	0	0	0	0	0	0

THTR NUC-8

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1 - THTR NUC

FACTOR	WT	060	029	066	067	070	059	071	087
1) PLATFORM	(30)	.00	.00	.00	.00	.00	.00	.00	.00
2) WEAPONS	(35)	.18	.06	.27	.27	.81	1.08	.68	.27
3) C3/I	(35)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.06	.02	.09	.09	.28	.38	.24	.09

1.1 - THTR NUC - PLATFORM

FACTOR	WT	060	029	066	067	070	059	071	087
1) ENGINES	*(63)	.00	.00	.00	.00	.00	.00	.00	.00
2) AIRFRAMES	*(38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.2 - THTR NUC - WEAPONS

FACTOR	WT	060	029	066	067	070	059	071	087
1) CASNG/MTRS	(24)	.00	.00	.00	.00	.00	.00	.00	.00
2) INTERNALS	(33)	.00	.00	.00	.00	.00	.00	.00	.00
3) GUIDANCE	(14)	.00	.00	.00	.00	.00	.00	.00	.00
4) NUC WEAPON	(28)	.64	.27	.95	.95	2.86	3.82	2.39	.95
TOTAL		.18	.06	.27	.27	.81	1.08	.68	.27

1.2.1 - THTR NUC - WEAPONS - CASNG MTR

FACTOR	WT	060	029	066	067	070	059	071	087
1) GUNS	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
2) ROCKETS	*(41)	.00	.00	.00	.00	.00	.00	.00	.00
3) IMB/IMBLTS	*(18)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.2.2 - THTR NUC - WEAPONS - INTERNALS

FACTOR	WT	060	029	066	067	070	059	071	087
1) WARHD/CONV	*(40)	.00	.00	.00	.00	.00	.00	.00	.00
2) FUZING	*(21)	.00	.00	.00	.00	.00	.00	.00	.00
3) PROFFLTS	*(38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.2.3 - THTR NUC - WEAPONS - GUIDANCE

FACTOR	WT	060	029	066	067	070	059	071	087
1) RADAR	*(33)	.00	.00	.00	.00	.00	.00	.00	.00
2) FASV ELTRN	*(11)	.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC	*(56)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.2.4 - THTR NUC - WEAPONS - NUC WEAPON

FACTOR	WT	060	029	066	067	070	059	071	087
1) ANAL/DEVEL	*(20)	.00	.00	.00	.00	.00	.00	.00	.00
2) TESTING	(43)	1.47	.53	2.21	2.21	6.63	8.84	5.53	2.21
3) SP NUC MAT	*(7)	.00	.00	.00	.00	.00	.00	.00	.00
4) WEAPONZATN	*(16)	.00	.00	.00	.00	.00	.00	.00	.00
5) FAB/ASSEMB	*(14)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.64	.23	.95	.95	2.86	3.82	2.39	.95

THTR NUC-B

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1.2.4.2 - THTR NUC - WEAPONS		- NUC WEAPON - TESTING							
FACTOR	WT	060	029	066	067	070	059	071	087
1) INSPECTION *(11)	14.00	5.00	.00	.00	.00	.00	.00	.00	.00
2) HYDRODYNAM *(37)	.00	.00	6.00	6.00	18.00	24.00	15.00	6.00	.00
3) NUC TESTING *(53)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	1.47	.53	2.21	2.21	6.63	8.84	5.53	2.21	

1.3 - THTR NUC - C3/I									
FACTOR	WT	060	029	066	067	070	059	071	087
1) EW *(9)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) NAV *(10)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) COMM *(22)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) SURV *(39)	.00	.00	.00	.00	.00	.00	.00	.00	.00
5) TARGETING *(20)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00

1.3.1 - THTR NUC - C3/I		- NAV							
FACTOR	WT	060	029	066	067	070	059	071	087
1) RADAR *(42)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) PASS FILTER *(33)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) ELECT OPTIC *(25)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00

1.3.4 - THTR NUC - C3/I		- SURV							
FACTOR	WT	060	029	066	067	070	059	071	087
1) RADAR *(48)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) PASS FILTER *(24)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) ELECT OPTIC *(29)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00

1.3.5 - THTR NUC - C3/I		- TARGETING							
FACTOR	WT	060	029	066	067	070	059	071	087
1) RADAR *(29)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) PASS FILTER *(14)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) ELECT OPTIC *(57)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00

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NODE	WEIGHT	SYSTEM SCORES							
		086	090	023	096	100	101	102	014
1	- THTR NUC (WT 100)								
1.1	- PLATFORM (WT 30)								
1.1.1	- ENGINES (WT 63)	0	0	0	0	0	0	0	0
1.1.2	- AIRFRAMES (WT 38)	0	0	0	0	0	0	0	0
1.2	- WEAPONS (WT 35)								
1.2.1	- CANNON/MTEC (WT 24)								
1.2.1.1	- GUN (WT 41)	0	0	0	0	0	0	0	0
1.2.1.2	- ROCKETS (WT 41)	0	0	0	0	0	0	0	0
1.2.1.3	- HMB/RMELT (WT 18)	0	0	0	0	0	0	0	0
1.2.2	- INTERNALS (WT 33)								
1.2.2.1	- WEAPON CONN (WT 40)	0	0	0	0	0	0	0	0
1.2.2.2	- FLTR DETC (WT 25)	0	0	0	0	0	0	0	0
1.2.2.3	- DEFELECT (WT 33)	0	0	0	0	0	0	0	0
1.2.3	- GUIDANCE (WT 14)								
1.2.3.1	- RADAR (WT 33)	0	0	0	0	0	0	0	0
1.2.3.2	- PASSV FLTRN (WT 14)	0	0	0	0	0	0	0	0
1.2.3.3	- ELCTR DETC (WT 57)	0	0	0	0	0	0	0	0
1.2.4	- NUC WEAPON (WT 28)								
1.2.4.1	- ANAL DEVEL (WT 20)	0	0	0	0	0	0	0	0
1.2.4.2	- TESTING (WT 48)								
1.2.4.2.1	- INFLECTION (WT 11)	0	0	0	0	0	0	0	0
1.2.4.2.2	- HYDRODYNAM (WT 37)	15	0	0	0	0	0	0	0
1.2.4.2.3	- NUC TESTING (WT 59)	0	0	0	0	0	0	0	0
1.2.4.3	- SP NUC MAT (WT 10)	0	0	0	0	0	100	0	0
1.2.4.4	- WEAPON TAIN (WT 12)	0	0	0	0	0	0	100	0
1.2.4.5	- FAN ACCEM (WT 14)	0	0	0	0	0	0	0	25
1.3	- CS 1 (WT 75)								
1.3.1	- EW (WT 19)	0	0	0	0	0	0	0	0
1.3.2	- NAV (WT 10)								
1.3.2.1	- RADAR (WT 42)	0	0	0	0	0	0	0	0
1.3.2.2	- PASSV FLTRN (WT 33)	0	0	0	0	0	0	0	0
1.3.2.3	- ELCTR DETC (WT 25)	0	0	0	0	0	0	0	0
1.3.3	- COMM (WT 22)	0	0	0	0	0	0	0	0
1.3.4	- DIRV (WT 39)								
1.3.4.1	- RADAR (WT 46)	0	0	0	0	0	0	0	0
1.3.4.2	- PASSV FLTRN (WT 24)	0	0	0	0	0	0	0	0
1.3.4.3	- ELCTR DETC (WT 29)	0	0	0	0	0	0	0	0
1.3.5	- TARGETING (WT 20)								
1.3.5.1	- RADAR (WT 29)	0	0	0	0	0	0	0	0
1.3.5.2	- PASSV FLTRN (WT 14)	0	0	0	0	0	0	0	0
1.3.5.3	- ELCTR DETC (WT 57)	0	0	0	0	0	0	0	0

THTR NUC-9

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1 - THTR NUC		WT	086	090	023	096	100	101	102	014
FACTOR										
1) PLATFORM	(30)		.00	.00	.00	.00	.00	.00	.00	.00
2) WEAPONS	(35)		.68	.32	.58	.58	1.93	1.93	4.51	.93
3) C3/I	(35)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL			.24	.11	.20	.20	.68	.68	1.58	.32

1.1 - THTR NUC - PLATFORM		WT	086	090	023	096	100	101	102	014
FACTOR										
1) ENGINES	*(63)		.00	.00	.00	.00	.00	.00	.00	.00
2) AIRFRAMES	*(38)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL			.00	.00	.00	.00	.00	.00	.00	.00

1.2 - THTR NUC - WEAPONS		WT	086	090	023	096	100	101	102	014
FACTOR										
1) CACNG MTR	(24)		.00	.00	.00	.00	.00	.00	.00	.00
2) INTERNALS	(33)		.00	.00	.00	.00	.00	.00	.00	.00
3) GUIDANCE	(14)		.00	.00	.00	.00	.00	.00	.00	.00
4) NUC WEAPON	(28)		2.39	1.14	2.05	2.05	6.82	6.82	15.91	3.27
TOTAL			.68	.32	.58	.58	1.93	1.93	4.51	.93

1.2.1 - THTR NUC - WEAPONS - CACNG MTR		WT	086	090	023	096	100	101	102	014
FACTOR										
1) GUNS	*(41)		.00	.00	.00	.00	.00	.00	.00	.00
2) ROCKET	*(41)		.00	.00	.00	.00	.00	.00	.00	.00
3) IRR RMNTS	*(18)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL			.00	.00	.00	.00	.00	.00	.00	.00

1.2.2 - THTR NUC - WEAPONS - INTERNALS		WT	086	090	023	096	100	101	102	014
FACTOR										
1) WAFNG CONV	*(40)		.00	.00	.00	.00	.00	.00	.00	.00
2) FUDING	*(21)		.00	.00	.00	.00	.00	.00	.00	.00
3) PROPTNTS	*(38)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL			.00	.00	.00	.00	.00	.00	.00	.00

1.2.3 - THTR NUC - WEAPONS - GUIDANCE		WT	086	090	023	096	100	101	102	014
FACTOR										
1) RADAR	*(33)		.00	.00	.00	.00	.00	.00	.00	.00
2) PASS FLTRN	*(11)		.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTR OPTC	*(56)		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL			.00	.00	.00	.00	.00	.00	.00	.00

1.2.4 - THTR NUC - WEAPONS - NUC WEAPON		WT	086	090	023	096	100	101	102	014
FACTOR										
1) ANAL/DEVEL	*(20)		.00	.00	.00	.00	.00	.00	.00	.00
2) TESTING	(43)		5.53	2.63	4.74	4.74	15.79	.00	.00	.00
3) SP NUC MAT	*(7)		.00	.00	.00	.00	.00	100.00	.00	.00
4) WEAPONZATN	*(16)		.00	.00	.00	.00	.00	.00	100.00	.00
5) FAB ASSEMB	*(14)		.00	.00	.00	.00	.00	.00	.00	24.00
TOTAL			2.39	1.14	2.05	2.05	6.82	6.82	15.91	3.27

THTR NUC-9

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1.2.4.2 - THTR NUC - WEAPONS - NUC WEAPON - TESTING

FACTOR	WT	086	090	023	096	100	101	102	014
1) INSPECTION *(11)		.00	.00	.00	.00	.00	.00	.00	.00
2) HYDRODYNAM *(37)	15.00	.00	.00	.00	.00	.00	.00	.00	.00
3) NUC TESTING *(53)	.00	5.00	9.00	9.00	30.00	.00	.00	.00	.00
TOTAL		5.53	2.63	4.74	4.74	15.79	.00	.00	.00

1.3 - THTR NUC - C3/I

FACTOR	WT	086	090	023	096	100	101	102	014
1) EW *(9)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) NAV *(10)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) COMM *(22)	.00	.00	.00	.00	.00	.00	.00	.00	.00
4) SURV *(39)	.00	.00	.00	.00	.00	.00	.00	.00	.00
5) TARGETING *(20)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.1 - THTR NUC - C3/I

FACTOR	WT	086	090	023	096	100	101	102	014
1) RADAR *(42)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) FACV ELTRN *(33)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) FLOTH OPTC *(25)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.4 - THTR NUC - C3/I

FACTOR	WT	086	090	023	096	100	101	102	014
1) RADAR *(48)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) FACV ELTRN *(24)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) FLOTH OPTC *(29)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

1.3.5 - THTR NUC - C3/I

FACTOR	WT	086	090	023	096	100	101	102	014
1) RADAR *(29)	.00	.00	.00	.00	.00	.00	.00	.00	.00
2) FACV ELTRN *(14)	.00	.00	.00	.00	.00	.00	.00	.00	.00
3) FLOTH OPTC *(57)	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

COMPLETED DATA SHEET

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NODE		WEIGHT	SYSTEM SCORE		
			061	091	006
1	- THTR NUC	(WT 100)			
1.1	- PLATFORM	(WT 30)			
1.1.1	- ENGINES	(WT 63)	0	0	0
1.1.2	- AIRFRAMES	(WT 38)	0	0	0
1.2	- WEAPONS	(WT 35)			
1.2.1	- CASNG/MTRS	(WT 24)			
1.2.1.1	- GUNS	(WT 41)	0	0	0
1.2.1.2	- ROCKETS	(WT 41)	0	0	0
1.2.1.3	- BMR/BMRLTS	(WT 18)	0	0	0
1.2.2	- INTERNALS	(WT 33)			
1.2.2.1	- WARHD/CONV	(WT 40)	0	0	0
1.2.2.2	- FUZING	(WT 21)	0	0	0
1.2.2.3	- PROPELLNTS	(WT 38)	0	0	0
1.2.3	- GUIDANCE	(WT 14)			
1.2.3.1	- RADAR	(WT 33)	0	0	0
1.2.3.2	- PASV ELTRN	(WT 11)	0	0	0
1.2.3.3	- ELCTR OPTC	(WT 56)	0	0	0
1.2.4	- NUC WEAPON	(WT 28)			
1.2.4.1	- ANAL/DEVEL	(WT 20)	0	0	0
1.2.4.2	- TESTING	(WT 43)			
1.2.4.2.1	- INSPECTION	(WT 11)	0	0	0
1.2.4.2.2	- HYDRODYNM	(WT 37)	0	0	0
1.2.4.2.3	- NUC TESTING	(WT 53)	0	0	0
1.2.4.3	- SP NUC MAT	(WT 7)	0	0	0
1.2.4.4	- WEAPONRY	(WT 16)	0	0	0
1.2.4.5	- FMR ASSEMB	(WT 14)	12	12	12
1.3	- C3/I	(WT 35)			
1.3.1	- EW	(WT 9)	0	0	0
1.3.2	- NAV	(WT 10)			
1.3.2.1	- RADAR	(WT 42)	0	0	0
1.3.2.2	- PASV ELTRN	(WT 33)	0	0	0
1.3.2.3	- ELCTR OPTC	(WT 25)	0	0	0
1.3.3	- COMM	(WT 22)	0	0	0
1.3.4	- SURV	(WT 39)			
1.3.4.1	- RADAR	(WT 48)	0	0	0
1.3.4.2	- PASV ELTRN	(WT 24)	0	0	0
1.3.4.3	- ELCTR OPTC	(WT 29)	0	0	0
1.3.5	- TARGETING	(WT 20)			
1.3.5.1	- RADAR	(WT 29)	0	0	0
1.3.5.2	- PASV ELTRN	(WT 14)	0	0	0
1.3.5.3	- ELCTR OPTC	(WT 57)	0	0	0

THTR NUC10

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1 - THTR NUC

FACTOR	WT	061	091	006	DISC1	CUMWT	FLG
1) PLATFORM (30)		.00	.00	.00	6.90	29.72	
2) WEAPONS (35)		.46	.46	.46	55.17	34.92	
3) C3/I (35)		.00	.00	.00	37.93	35.36	
TOTAL		.16	.16	.16	100.00	100.00	

1.1 - THTR NUC - PLATFORM

FACTOR	WT	061	091	006	DISC1	CUMWT	FLG
1) ENGINES *(63)		.00	.00	.00	3.45	18.57	
2) AIRFRAMES *(38)		.00	.00	.00	3.45	11.14	
TOTAL		.00	.00	.00	6.90	29.72	

1.2 - THTR NUC - WEAPONS

FACTOR	WT	061	091	006	DISC1	CUMWT	FLG
1) CASNG/MTRS (24)		.00	.00	.00	10.34	8.42	
2) INTERNALS (33)		.00	.00	.00	10.34	11.64	
3) GUIDANCE (14)		.00	.00	.00	10.34	4.95	
4) NUC WEAPON (28)		1.64	1.64	1.64	24.14	9.91	
TOTAL		.46	.46	.46	55.17	34.92	

1.2.1 - THTR NUC - WEAPONS - CASNG/MTRS

FACTOR	WT	061	091	006	DISC1	CUMWT	FLG
1) GUNS *(41)		.00	.00	.00	3.45	3.47	
2) ROCKETS *(41)		.00	.00	.00	3.45	3.47	
3) HMR/RMBTS *(18)		.00	.00	.00	3.45	1.49	
TOTAL		.00	.00	.00	10.34	8.42	

1.2.2 - THTR NUC - WEAPONS - INTERNALS

FACTOR	WT	061	091	006	DISC1	CUMWT	FLG
1) WARHD/CONV *(40)		.00	.00	.00	3.45	4.71	
2) FUZING *(21)		.00	.00	.00	3.45	2.48	
3) PROPELNTS *(38)		.00	.00	.00	3.45	4.44	
TOTAL		.00	.00	.00	10.34	11.64	

1.2.3 - THTR NUC - WEAPONS - GUIDANCE

FACTOR	WT	061	091	006	DISC1	CUMWT	FLG
1) RADAR *(33)		.00	.00	.00	3.45	1.63	
2) PASSV ELTRN *(11)		.00	.00	.00	3.45	.54	
3) ELCTR OPTC *(56)		.00	.00	.00	3.45	2.77	
TOTAL		.00	.00	.00	10.34	4.95	

1.2.4 - THTR NUC - WEAPONS - NUC WEAPON

FACTOR	WT	061	091	006	DISC1	CUMWT	FLG
1) ANAL/DEVEL *(20)		.00	.00	.00	3.45	2.03	
2) TESTING (43)		.00	.00	.00	10.34	4.28	
3) SF NUC MAT *(7)		.00	.00	.00	3.45	.68	
4) WEAPONZATN *(16)		.00	.00	.00	3.45	1.58	
5) FAR/ASSEMB *(14)		12.00	12.00	12.00	3.45	1.35	
TOTAL		1.64	1.64	1.64	24.14	9.91	

THTR NUC10

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1.2.4.2 - THTR NUC - WEAPONS - NUC WEAPON - TESTING

FACTOR	WT	061	091	006	DISC1	CUMWT FLG
1) INSPECTION *(11)		.00	.00	.00	3.45	.45
2) HYDRODYNAM *(37)		.00	.00	.00	3.45	1.58
3) NUC TESTNG *(53)		.00	.00	.00	3.45	2.25
TOTAL		.00	.00	.00	10.34	4.28

1.3 - THTR NUC - C3/I

FACTOR	WT	061	091	006	DISC1	CUMWT FLG
1) EW *(9)		.00	.00	.00	3.45	3.17
2) NAV *(10)		.00	.00	.00	10.34	3.45
3) COMM *(22)		.00	.00	.00	3.45	7.92
4) SURV *(39)		.00	.00	.00	10.34	13.87
5) TARGETING *(20)		.00	.00	.00	10.34	6.93
TOTAL		.00	.00	.00	37.93	35.36

1.3.2 - THTR NUC - C3/I - NAV

FACTOR	WT	061	091	006	DISC1	CUMWT FLG
1) RADAR *(42)		.00	.00	.00	3.45	1.41
2) PASV ELTEN *(33)		.00	.00	.00	3.45	1.16
3) ELCTR OPTC *(25)		.00	.00	.00	3.45	.81
TOTAL		.00	.00	.00	10.34	3.42

1.3.4 - THTR NUC - C3/I - SURV

FACTOR	WT	061	091	006	DISC1	CUMWT FLG
1) RADAR *(48)		.00	.00	.00	3.45	6.60
2) PASV ELTEN *(24)		.00	.00	.00	3.45	3.30
3) ELCTR OPTC *(25)		.00	.00	.00	3.45	3.96
TOTAL		.00	.00	.00	10.34	13.87

1.3.5 - THTR NUC - C3/I - TARGETING

FACTOR	WT	061	091	006	DISC1	CUMWT FLG
1) RADAR *(29)		.00	.00	.00	3.45	1.98
2) PASV ELTEN *(14)		.00	.00	.00	3.45	.99
3) ELCTR OPTC *(57)		.00	.00	.00	3.45	3.96
TOTAL		.00	.00	.00	10.34	6.93

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